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REMARKS
ON THE
LATE WAR WITH RUSSIA;
TOGETHER WITH
PLANS FOR THE ATTACK
ON
CRONSTADT, SWEABORG, AND HELSINGFORS.
WITH
AN APPENDIX AND MAP
ILLUSTRATIVE OF
THE DISTRIBUTION OF THE RUSSIAN ARMY
AT THE
COMMENCEMENT OF THE WAR.
BY
JOHN COCHRANE HOSEASON, ESQ.
COMMANDER, R.N.

LONDON:
EDWARD STANFORD, 6, CHARING CROSS.
1857.

223. a. 56.



REMARKS,

ETC. ETC.

I AM induced to submit the following Correspondence and Plans for a Campaign in the Baltic, conjointly with a few remarks on the conduct of the *late* war, to the calm consideration of the public, that they may be enabled to form a just conception of the injury inflicted on the country, consequent upon the present political formation of the Board of Admiralty.

Never was there a war which offered brighter prospects of success to this country, than the last, and yet never one in which its naval reputation fell so signally in the estimation of all Europe. This has been traced to the fact, that the war commenced under the auspices of those who were themselves deficient in high professional acquirements, and were thus incapable of designing such series of operations as would have been morally certain to result in a successful issue, and who seemed to remain to the last, insensible to the value of the resources at their command, and the facilities they afforded for gigantic operations against the enemy.

What might not have been effected, if the First

Naval Lord of the Admiralty, Sir Maurice Berkeley, had but duly appreciated his position, and instead of ridiculing Lord Dudley Stuart in the House of Commons, had submitted such plans to Government in July, 1854, for an attack on Cronstadt, as contained in the following pages. The fate of Cronstadt, Sweaborg, and Helsingfors, would have been sealed in the ensuing campaign, and Sweden would doubtlessly have joined the Allies in 1855, had she seen a prospect of the power of Russia being crushed in the Baltic; but that fatal speech of Sir Maurice Berkeley, together with his disclosure of the private sentiments of Vice-Admiral Sir Charles Napier, and Rear-Admiral Chads, of the unassailable position of Cronstadt, made it as impossible for the Allies to ask, as for the Government of Sweden to accede to any such alliance. A marked change in the political world was effected, when General Canrobert was in a position to announce, on his mission to Sweden, the formidable nature of the operations in contemplation for the campaign of 1856.

Few, capable of forming a just estimation of the terrible nature of the bombardment to which, as the following plan renders evident, Cronstadt could have been subjected, will doubt, that had similar means been placed at the disposal of the Commander-in-Chief in the Black Sea, the fall of Sebastopol must have been materially accelerated—and Kars thus saved!

A glance at the chart of Sebastopol, and the use of

a pair of compasses, will shew the vast number of mortar vessels which might have been deployed on the flank, and in the rear of the enemy's works, to facilitate their destruction, and to render them perfectly untenable. What an important change would have been effected in the war, had the Navy been only permitted to contribute its just share to the fall of that great fortress !

Let the reader but turn to the following estimate of the effect of the crushing force of the 71 13-inch mortars deployed round Cronstadt, and he will observe that although the 10,224 shells proposed to be thrown daily into that city weigh in their passive state but 1093 tons, yet the momentum they acquire when fired at an angle of 45° , and with a charge of 20 lbs. of powder, causes them to fall with the tremendous crushing force of 490,752 tons. I have shewn in the aggregate the crushing force of the 71 mortars deployed in the plans round Cronstadt ; but I will here trace the effect of a single mortar vessel, so that the reader may compute for himself the marvellous consequences of such a bombardment.

Each mortar is computed to throw into the city *one* 13-inch shell every ten minutes, or six shells every hour ; this will give 144 for the day of 24 hours. The passive or dead weight of these 144 shells is only 13 tons 10 cwt. and therefore such dead weight is all that the boat has to carry, but when discharged from the mortar at an angle of 45° , and with a charge of 20 lbs. of powder, each of these 13-inch shells will fall with a terminal or

crushing force of about 48 tons ; hence each of these *little* boats is capable of throwing into a city a destructive power of 6912 tons ! to which destructive power has also to be added, the inflammable nature of the Valencienne composition contained in the shell, together with the 10 lbs. of bursting powder with which each shell is charged. Thus 71 such mortars would daily explode in a city 100,000 lbs. of gunpowder, or 46 tons.

I wish the reader seriously to reflect upon these well-established facts respecting the crushing force of 13-inch mortars, and then ask himself, whether it was ignorance or indifference, or what—which induced the Board of Admiralty to neglect to the last to profit by the high professional experience of those who were competent to prove, how, by the use of such means, Sebastopol might have been reduced in a shorter period than that of two tedious campaigns.

But what chance has this nation of success in any military operations, if we refuse to avail ourselves of such gigantic means to crush the strongholds of the enemy, and which the unbounded resources of Great Britain have throughout the late war placed readily at our command.

The advantage this country possesses in the magnitude of its Steam Transport Fleet is generally admitted, but few are aware of its real bearing upon war in reference to its economy and rapidity, as compared to a land transit, and of the numerous facilities it offers, when desirable to change the

active basis of our operations. To make this palpable to the general reader, I will illustrate my argument by taking a single example, in a vessel engaged at the highest rate of freight, at the commencement of the late war, and which case may be made applicable, when we consider generally the most advantageous steps to be taken in the prosecution of a campaign.

A steamer of 2500 tons register, engaged at 50 shillings a ton per month,* cost Government in round numbers £200 per day, exclusive of the expense of the fuel,—the engines of such steamer will consume about 60 tons a-day—and thus, if the average price of the fuel be £3. per ton, the entire cost of the steamer to Government, coal included, will be £380 per day. Such vessel will, however, carry 1500 men, and 500 tons of munitions of war, and will average in speed about 10 knots an hour, or 240 miles per day; consequently, we have one man, and in round numbers, 7 cwt. of munitions of war, moved 240 miles for 5 shillings, or at the rate of $\frac{1}{4}d$ per mile!—a sum three-fourths less than that for which the Parliamentary Trains are required to carry passengers in England.

Now, to contrast this with the land transit. The load for a horse or mule upon the march is 2 cwt.;†

* See Captain A. Milne's Evidence, Third Report, p. 289, No. 16,680.

† 2 cwt., or 224 lbs., is here taken for the load of a horse or mule, to simplify the comparison, but the more generally admitted weight is 200 lbs.

therefore, 10 mules are required for every ton, or 12, allowing two spare animals; thus, to move the 500 tons of munitions of war above mentioned, will require 6000 mules, which at the moderate estimate of £30. a mule, as the value of the animal at the seat of war, will amount to £180,000; whilst, on the other hand, the entire cost of the steamer to the Company from whom she was engaged, was only £96,000.

Again, the price of the fuel is only required to be taken in addition to the freight of the steamer, when the vessel is in motion, and thus may be termed the *food* of the engines; while, on the other hand, the mules must be fed, although unemployed. The cost of the maintenance of such an animal in England is about 12 shillings a-week, but can hardly be taken at less than twice that sum at the seat of war; therefore, the 6000 mules will cost weekly 144,000 shillings, or £7,200, which is £1,028 a-day, while the food of the engines is only £180 a-day.

To this must be added, the great demand for attendance on the baggage-animals; the wages and food for the men, and if one man be allowed for every two mules, 3000 men will be required,—whilst the complement of the steamer, above alluded to, is but 126 men, officers included—a saving equal to that of two entire regiments.

If carts be employed, the number of animals will, of course, be considerably reduced*—but there will

* A Commissariat cart drawn by one animal is computed to carry 600 lbs.

be the original cost of the cart, and the expense of keeping it in repair ; and in either case, the great additional expense of the loss of animals, caused by inclemency of weather, scarcity of provisions, and other casualties, must not be lost sight of,—whereas £200. a day, paid to the Company for the use of the steamer, includes everything.

In reference to time, however, and its important bearing upon war, the case merits far greater consideration, for the mule will not travel with a convoy for any lengthened period, at an average of more than 10 miles a day, whilst the steamer above referred to, travels 24 times faster, or effects, with the additional burthen of 1500 men, that which the mules take 24 days to accomplish ;—however, to remove every objection as to their relative speed, I will estimate the steamer to average only 200 miles in 24 hours ; or to travel 20 times faster than the mule.

Had these facts been more generally appreciated, we should not have heard so often of “*the folly of attacking Russia on her own territories* ;”—the war in Asia would have drawn Russia into evidently greater expense, especially after we had obtained full possession of the Sea of Azoff.

But what will the nation think of the foresight of the Right Hon. Sir James Graham, when they are informed that he permitted War to be declared without having stored at Gibraltar, Malta, and Constantinople, such adequate supply of fuel, as would have

enabled us to develop the maritime resources of the country.

I have good reason to conceive, that if a Parliamentary return were moved for, of the number of tons of fuel in the Government stores at Malta just previous to the declaration of war, that a very insignificant quantity would prove to be the whole amount;* and thus, the right arm of England, her steam marine, was paralyzed, and the rate of freight enormously enhanced, for the transport of men and munitions of war, by the demand concurrently made on the shipping-world for the transport of fuel. Had sixty or eighty thousand tons of fuel been quietly and secretly stored at each of the above-named places—had contractors been directed to construct jetties and wharfs, with cranes worked by steam, and other requisites for the orderly coaling of a vast steam-fleet, how steadily and rapidly would our troops and stores have been conveyed to the seat of war, and the confusion, expense, and misery at Constantinople and Balaclava been prevented—and the Right Hon. Baronet would have been spared the hisses of the ladies of Carlisle, in return for his ill-advised dissertation on the interminable prospects of a war, to be carried on at a distance of 3000 miles; when, in fact, but for his own deplorable mismanagement, that

* This is inferred from the large quantity of coal sent from England to the East, viz., 110,867 tons between the 7th of February, 1854, to the 22nd of January, 1855.

distance ought practically to have been made equivalent, in *time*, to a land transit of 130 miles !

But if such be the foresight displayed, in making provision for the rapid and orderly transit of the steamers themselves, what will the country think of his competency, when informed, that it was not until the close of the first year of the war, and when the entire Transport Service was in the utmost state of confusion, that he appears to have discovered, that it was necessary to form a Transport Department, to regulate the movements of a gigantic fleet of 217 of the largest vessels in the world, as will be seen by the following abstract.

Number of Steam Transports		{ Tonnage . 121,060
employed	102	{ Horsepower 26,317
Sailing Transports	115	Tonnage . 93,172
Total		217 vessels.

Collective tonnage of vessels 214,232 tons.* Number of officers and men employed in the above about 9,256; and for the maintenance of which his own estimate for 1855-56 shewed £5,181,465 was required:—for to these gigantic proportions, had this important branch of the naval department grown, in about twelve months, under the higgledy-piggledy supervision of a few overworked clerks of the Admiralty.†

* Mean average tonnage of the steamers, 1196 tons. Ditto of sailing vessels, 810 tons.

† See Capt. A. Milne's Evidence before the Committee of the House of Commons, Third Report, p. 288, No. 16,667, 16,668, &c. &c.

Has England, and the world, any just cause for astonishment at the disorder which ensued, when such incapacity presided over this most important branch of the State? The simple facts of the case are, that Sir James Graham, many years before, to the injury of the efficiency of the naval profession, suppressed the Transport Board, together with the Marine Artillery,—a truly practical and scientific corps, which had taken years to perfect, and the loss of which, in its full strength, has lately been so severely felt. When war was declared, Sir James Graham had not the moral courage to admit his error, by immediately reconstructing the Transport Board; and it was only the repeated denunciations of the Press that obliged him, though tardily, to put on an efficient footing an establishment, whose short-comings had inflicted untold misery and confusion on the effective little army, which, under better auspices, would easily and rapidly have been conveyed to the East.

It is well for the nation to know the absurd folly of this thrifty policy; it is well, that the value of that false economy should be tested, which has brought in its train every species of disaster, confusion, and *expense*, and has lost for England, her prestige in the eyes of all Europe.

The Naval Estimates for 1855-56 give the amount in pounds, shillings, and pence, and we have the satisfaction to learn, on observing the converse of the picture, that the sum of £10,433 is all

that this great nation was required to grant to a Chairman, Directors, a Secretary, and Clerks, to regulate the expenditure of £5,181,465, to restore order amongst the 217 transports, and thus to enable them effectually to supply the wants of an army, and the demands of a war, that at *last* was assuming its due proportions.

Abundant evidence of the mischief inflicted by Sir James Graham on the army, consequent on the inefficiency of the Transport Department, is to be found in the fact that although this service was in full operation from the 7th of February, 1854, it was not until December of the same year, "that a Cargo-Book was regularly kept"! The confusion that necessarily ensued baffled all the exertions of the Minister at War, in his endeavours efficiently to supply the wants of the army. A Treasury minute of the 12th of December, 1854, states that many articles sent out to the Crimea had been brought back in the same vessels and taken out again, before they were delivered; in other cases, where the vessels had remained with the army, three or four months had elapsed before the stores were received by the Commissariat. Ships were also so loaded, that on arriving at the port to which *part* of their cargo was destined, the position of that part of the cargo was unknown, and the ship had to proceed on her voyage, carrying with her things that ought to have been delivered at the intermediate port.

I ask the country, who is directly chargeable

with all this confusion, this waste of time, stores, and money, and consequent misery and suffering entailed upon our gallant army, if it be not he, who neglected to establish, ere all this confusion was created, an efficient Transport Department?

As great stress has been laid on the amount of work done by the Transport Service, I will here place that matter clearly before my readers, that no possible doubt may attach to this subject for the future. The Parliamentary abstract from the 7th of February, 1854, to the 22nd of January, 1855, furnishes all the necessary information. From this document I gather, that during the above stated period, 217 steam and sailing transports were employed, of the aggregate burthen of 214,232 tons, and that the number of officers and men, horses, and quantity of stores in tons, conveyed to the East and to the Baltic, were as follows.—

To the East.

Officers and Men.	Horses.	Stores in Tons.
70,976*	5,601†	85,000‡
<hr/>	<hr/>	<hr/>

To the Baltic.

Officers and Men.	Horses.	Stores in Tons.
13,325	21	9,859
<hr/>	<hr/>	<hr/>

* This includes 14,611 French officers and men conveyed from Marseilles to the East.

† Including 193 horses from Marseilles.

‡ Inclusive of 7,180 tons from Malta and 8,037 tons from Marseilles.

A glance at these figures will prove, that a fleet of such burthen in tons might have conveyed the entire force in a single voyage ; for we observe that for every ton of shipping employed during these 10 *months and a half*, there would be, by the nearest estimate, but the $\frac{1}{3}$ part of a man, the $\frac{1}{2}$ of a ton of stores, and the $\frac{1}{18}$ part of a horse to be conveyed !

These facts become the more startling, when we perceive the great amount of tonnage employed from the earliest date ; which may be inferred from the sum demanded for their maintenance in the Naval Estimates.

Estimate for 1854-55	.	£3,582,474.
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Estimate for 1855-56	.	£5,181,465.
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I wish also to correct the erroneous opinion, that it was the Transport Service which conveyed the large quantity of coal to the East and to the Baltic, to supply the wants of our vast steam fleet. A foot note in the Parliamentary abstract informs us that "These coals were conveyed by colliers, and not by the transports." This is a very important fact to be thus clearly established, for during the *same period* that our transport fleet was employed, as stated in the above mentioned return, these colliers conveyed 158,774 tons of dead weight,* or nearly double the

*	110,867 tons to the East.
	47,907 tons to the Baltic.

Total,	158.774 tons
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weight of munitions of war, provisions, and stores, conveyed by the naval transport fleet !

It has been repeatedly averred in Parliament and in other places, that the resources of England were exhausted by Government in procuring means for the transport of men and stores during the late war ; the following facts will give a ready refutation to that fiction. The Custom House records of vessels that have entered inwards and cleared outwards will satisfactorily establish the enormous increase of the British shipping since 1815.

1815. Entered inwards and cleared outwards,
17,772 vessels. Aggregate tonnage,
2,770,796.

1850. Entered inwards and cleared outwards,
42,679 vessels. Aggregate tonnage,
9,031,229.

Foreign shipping, trading with England, have increased in similar proportions ; and as the population of Great Britain has not doubled since 1815, the inference is clear, that our resources for the purposes of war were unlimited, especially when we consider the great increase in the tonnage and speed of our shipping, consequent on the improvements in ship-building and the introduction of steam as a motive power.*

* An account of the number and tonnage of British steam vessels employed in the foreign trade of the United Kingdom, which entered inwards and cleared outwards in the month ending 5th February, 1854, exclusive of vessels in ballast. This

I deem it to be a point of considerable importance to enable me to determine our vast military resources, that I should clearly demonstrate, how utterly at variance with fact, was the oft repeated assertion of Sir James Graham, that he had exhausted the means of transport of this great country, to supply the shipping necessary to convey our army from Varna to the Crimea ; and this fact once established, directly fastens on Sir James himself, the heavy responsibility, of obliging the Commander-in-Chief of the British Army to sail for the Crimea, deficient in cavalry, baggage animals, ambulances, and other military stores, which consequently deprived him of the means of following up his successes at the Alma, and of removing the wounded from the field of battle.

I have compared above, the number of vessels and their burthen in tons, that entered inwards and cleared outwards, in the years 1815 and 1850, with a view to shew the increase of our mercantile marine since the period when we were engaged in our great

is for the month previous to the declaration of war with Russia—

Entered Inwards	245 vessels	76,938 tonnage
Cleared Outwards	230 „	80,154 „

Total,	475	Total,	157,092 tonnage
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Steam vessels employed on the coasting trade of the United Kingdom in the month ending 5th of February, 1854—

Entered Inwards	1237 steam vessels	300,523 tonnage
Cleared Outwards	1237 „	289,996 „

Total vessels	2474	Total	590,519 tonnage
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military operations in the Peninsula, but it will be perceived that I have reserved for a further comparison, the rapid increase of our shipping consequent on the discoveries of gold in Australia, the sudden expansion of our trade, and the exodus that immediately ensued to that distant land; and again the providential collapse of those great demands upon the shipping world, just six months previous to the declaration of war, thus placing at the entire command of the First Lord of the Admiralty, from an overglutted market, the most magnificent fleet of ocean steam and sailing vessels, that a Minister engaged in a great war could possibly desire—a fleet that had just perfected a gigantic operation, such as the world had never heretofore witnessed. A consideration of these several facts, will satisfactorily establish the insignificant nature of the task so imperfectly executed by the Board of Admiralty.

The Emigration returns for 1852 record the important fact, that 87,881 persons were conveyed to Australia,*

244,261 to the United States,

32,876 to Canada, and

3,749 to other countries, making

the great total of 368,767 persons, conveyed by the mercantile marine of this country, during a period of unprecedented commercial activity, caused by the sudden demand on the shipping world, for the

* See Colonization Circular. Issued by Her Majesty's Emigration Commissioners for 1856. No. 16.

transport to the antipodes, of every luxury and comfort, as well as of the common necessities of life, to supply the lavish demands of a population that were daily consuming, in consequence of their unexampled wealth, an amount of stores that would more than have sufficed to maintain an army of 300,000 men at Balacava; whilst the materials simultaneously transported, enabled a magnificent city like Melbourne to arise, where comparatively speaking there had been an uncultivated waste; to meet these various wants, the imports of this single port of Melbourne rose from £1,056,437 in 1851, to £15,095,047 in 1853.

But to duly appreciate these two operations, we must consider the relative distances that the men and materials had in either case to be conveyed. The distance from England to Balacava is little more than 3000 miles, to be accomplished in four easy stages; whilst the voyage to Melbourne or Sydney is upwards of 12,000; we must therefore multiply 87,881 persons by *four* if we are desirous to ascertain the relative magnitude of these undertakings; consequently, we observe that the transport of 87,881 persons to Australia, is a task equal to the movement of 351,524 persons to Balacava; the distance to New York being about equal to Balacava, and Canada only a little short of it, but over a far more turbulent sea, we may consider that the entire emigration for the year 1852 was

equal to the transport of 682,410 persons from England to Balaclava.

The amount of baggage conveyed at the same time is not less remarkable, for allowing 40 cubic feet, or one ton, as an average to Australia, inclusive of the amount conveyed as freight by the richer class of emigrants, we shall have as many tons as passengers, viz. 87,881 tons moved 12,000 miles, or *four* times the distance of England from Balaclava ; therefore, the total amount of tons conveyed as luggage to Australia is equal to 351,524 tons to Balaclava ; and if only 20 cubic feet or half a ton be granted for the rest of the emigrants that left England for New York and Canada, we have 140,448 tons to be added, which represents 491,967 tons conveyed 3000 miles in the year 1852, by the administrative talent of the merchants and ship-owners of England, during a period of the greatest commercial activity.

The amount of tons of shipping necessary to effect this vast exodus, is not less curious than instructive ; and in the absence of a correct list, can readily be stated, with a close proximity to the truth ; for by the emigration regulations it is known, that a ship that can carry about 12 or 1400 tons of cargo, is not permitted to carry more than from 280 to 330 passengers ; therefore by the simple rule of three, we discover that 372,828 tons of shipping were required to move the 87,881 passengers to Australia ; 1,036,258 tons to convey the 244,261

passengers to America ; 139,473 tons to convey the 32,876 to Canada ; and 15,904 tons to convey the 3,749 to other places ; making a grand total of 1,564,466 tons of shipping required for the transport of the 368,767 persons during the above-named period.

It will be observed, that these vast operations were executed by the British merchants and ship-owners, under circumstances of peculiar difficulty in 1852, when contrasted with any operation conducted by the First Lord of the Admiralty in 1854. For on the discovery of gold in California in 1848, and in Australia in 1851, an immense expansion of trade was the immediate consequence, both to the United States and to Australia : the exports to the United States rose rapidly from £9,564,909 in 1848, to £16,567,737 in 1852, and to £23,658,427 in 1853, when it reached the maximum ; the imports of Victoria were even more remarkable, being £1,056,437 in 1851 ; £4,069,742 in 1852 ; £15,095,047 in 1853 : and when we reflect on the almost general desertion of the crews of the shipping, on their arrival in Australia, to visit the gold mines of Victoria, and the difficulties which had to be surmounted in the discharge and storing of the cargoes, we shall duly appreciate the magnitude of the undertaking.

All England are aware of the energy displayed by the engineers and ship-builders of this country, to meet these extraordinary demands ; for apart from any consideration of the simultaneous demand

of Foreign States on their exertions, the increase of British shipping alone employed in the Foreign Trade of the United Kingdom, between the years 1850 and 1854, will sufficiently demonstrate the magnitude of the resources of this country.

	Tons.
1850. Entered inwards	. 4,078,544.
Cleared outwards	. 3,960,764.
1854. Entered inwards	. 4,789,986.
Cleared outwards	. 4,683,654. .

Showing an increase in four years of 1,434,331 tons of British shipping! which I beg my readers to remark, is more than one half of the tonnage of Great Britain in 1815, measured by the same standard; *—these are *facts*, which neither reasoning can weaken, nor sophistry evade; and which must clearly establish the fallacy of the assertion made by the First Lord of the Admiralty, when he desired the Committee of the House of Commons to believe that he had exhausted the resources of this great country, in his endeavour to supply Lord Raglan with the means of transport for his army from Varna to the Crimea.

Mr. Roebuck will readily perceive why the Right Hon. Gentleman so strenuously opposed his motion

* British vessels employed on the coasting trade of the United Kingdom during the year 1854—

Entered inwards	. 12,762,107 tons
Cleared outwards	. 13,905,603 „

Statistical Department, Board of Trade, Feb. 1855.

for a Committee of Enquiry ; but the nation has a right to ask, whether the above affirmation was made by Sir James from ignorance, or with the intention to mislead : my argument merely places him between the horns of a dilemma, and I leave him to take his choice ; content to observe, that if the Right Hon. Baronet was so deplorably ignorant of facts, which it was his special duty as First Lord of the Admiralty to know, he furnishes us, in his own person, with a remarkable proof of the small amount of talent with which a great nation is often governed.

Are these, however, the only ruinous acts of neglect on the part of the Right Hon. Baronet ? are these the only points of omission which are directly chargeable on his want of administrative capacity ? If the formation of large depôts of coal that would have given life to a steam transport fleet was his first duty ; if the early establishment of an efficient Transport Department was the second ; there were other duties hardly less important ; as the construction of coal wharfs ; the furnishing of a large supply of coal and provision lighters ; the organization of an efficient fleet of *steam tugs*, and *steam water tanks*, at or near Constantinople, to meet the various wants of so vast a fleet.

Let those who think I deal harshly with the Right Hon. Baronet, carefully peruse the important evidence taken before Mr. Roebuck's Committee of Enquiry, and they will find sufficiently established

there, on official authority, the omissions of which he was guilty.

It is in those pages satisfactorily proved that we had no *efficient* coaling wharfs, or well organized coaling establishments, consisting of lighters and *steam tugs*; steam transports which were costing the country £200 a day for freight, were from the imperfection of the coaling arrangements detained 24 hours in getting 30 tons of fuel on board; when it is notorious to officers accustomed to command steamers that 40 tons *an hour* may readily be put on board from well organized coal depôts; with our vast private steam-building establishments in Great Britain, all most desirous to serve the country whenever called upon, there was positively not *one Government steam* water tank at Constantinople to meet the requirements of the largest steam and sailing fleet ever dispatched from our shores.

With a parliamentary return of more than 1,100 steamers of all sizes and dimensions, the country will hardly credit the fact that Sir James Graham neglected to dispatch suitable vessels to the mouth of the Dardanelles to tow up the wind-bound colliers and sailing transports, the distance of 150 miles to Constantinople.

It was *not* from the miserable resources of Malta and Constantinople, that these great demands for war could have been supplied, but it was from England, abounding in ready constructed steamers of all sizes and dimensions, and with her innumerable private

firms of unquestionable talent, mechanical genius, and material resources.

With these facts to guide our judgment who will doubt for an instant the motives of Sir James when he laboured to defeat Mr. Roebuck's motion for a committee of enquiry; or who can fail to perceive how important it was for his reputation, that the simple facts elicited before that tribunal, should never be known to the public.

In the midst of such great national prosperity and abundance of resources, Sir John Pakington* stood amazed to learn from the lips of the late Naval Commander-in-Chief of the Black Sea that 125 ships, men-of-war included, were all the means of transport placed at his disposal by the then First Lord of the Admiralty to convey our army and munitions of war from Varna to the Crimea! So singularly difficult was it for the Right Hon. Baronet to obtain the adequate number of shipping.

Yet curious to relate, the Emigration Commissioners record the interesting *fact*, that the merchants and shipowners of England did in this same year of 1854, convey 323,429 persons, with their effects to Australia, the United States and Canada;† but no doubt the eloquent Baronet will endeavour to amuse the public, by stating, that from some strange perversity of disposition and lack of patriotism, the

* See Evidence of Vice-Admiral J. W. D. Dundas, Fourth Report, page 215, No. 20,523.

† See Colonization Circular. Issued by Her Majesty's Emigration Commissioners, 1856. Page 2.

shipowners of England refused the more lucrative Government employ, and would accept of nothing, but such limited remuneration as could be extracted from the needy emigrant !

Can we for an instant question, after a careful perusal of the evidence taken before Mr. Roebuck's Committee, who was directly chargeable, with all the misery entailed upon the sick and wounded during their transport from the Crimea to Scutari? Sir James and his supporters would willingly, as usual, have laid the burthen of such responsibility upon the Commander-in-Chief in the Black Sea; but it is evident that with an unlimited supply of shipping in England, the necessary transports for the conveyance of our army and stores from Varna to the Crimea had been *'withheld'* and under these circumstances, with the very existence of the army at stake, the necessary provision could not there be made; the neglect is directly chargeable, on the confused state of the Transport Department; and for which Sir James is alone responsible; the chief of the Medical Staff in England, having made the necessary requisition in full time.

This evidence moreover elicits, on the authority of the Naval Commander-in-Chief in the Black Sea that the movements of his fleet were paralysed through the want of coal, whilst wind-bound colliers innumerable were detained at the mouth of the Dardanelles, because, as before remarked, no provision had been made by the then First Lord of the Admiralty for such a contingency !

When the frightful losses occasioned by the destructive hurricane in the Crimea on the 14th of November, 1854, became known at Constantinople, the energetic efforts of the Deputy Commissary-General stationed there, were rendered nugatory;* the transport carrying the necessary supplies being detained for three days, solely in consequence of Sir James Graham's want of foresight, in having failed to supply the requisite number of water tanks for so vast a fleet.

The reader will observe, that I have demonstrated, that if this great country has not taken a more leading position in the late war, the cause is not so much to be traced to a want of ability and energy in the subordinates, as to a want of administrative talent at the fountain head; no energy in subordinates, no administrative talent on their part, could compensate for the short-comings of their superiors; subordinate officers like Rear-Admiral Boxer, and Captain Christie, might have been removed, but their successors must have had to struggle against the same difficulty of a Transport service that had no organization; whose vessels were dispatched from England in the utmost state of confusion, and without plans or books to shew how the cargo was stowed; and also without the necessary provision in boats, *steam tugs*, wharfs,

* The Deputy Commissary-General and Sir C. E. Trevelyan, state that twenty-one days' time was lost altogether, three days waiting to complete water.

houses, &c., for the landing and reception of their cargoes.

The resources of the Crimea, in *this respect*, must have been well known; and the wants of a Transport service in the shape of boats, wharfs, and houses, ought to have been foreseen; nor was it less important that an Officer of rank and station, with unlimited power to demand supplies, and to enforce order, and at the same time not subject to be superseded in his authority by the presence of *every* senior, should have sailed with so vast a fleet of Transports; carrying with him a commission to take charge of any port that our forces might seize in the enemy's country. Had a Transport department existed at the commencement of the late war, these self-evident truths would have occurred to the mind in the mere ordinary routine of duty; it is therefore only a plain matter of justice, that he who suppressed so important a branch of the State, and who failed to provide for the exigencies of the service, should be held responsible for the consequences.

The late Minister for War was fully sensible of the short-comings of his colleague, and the inefficiency of the Transport service, but he was thwarted in his endeavour to bring this branch of the service under his more immediate control, by the Right Honourable Baronet at the head of the Admiralty; common sense and prudence will, however, dictate, in any future war, that the Commissariat of

the Army, and the Naval Transport Service, should be more intimately blended; and that it shall be clearly defined who is to provide the necessary boats, wharfs, and storehouses to facilitate the more rapid discharge of these expensive transports, when a great war is to be carried on in a thinly populated and poverty-stricken country like that of the Crimea.

These are the omissions directly traceable to the then First Lord of the Admiralty; and I shall be curious to learn how he will evade them, or upon whom he will seek to transfer the burthen of his own dereliction of duty; which directly served to paralyze the enormous military resources of this kingdom.

It has repeatedly been urged, by those who so signally failed to develop the marvellous resources of this country, and thus provide for the exigencies of the late war, that England is not a great military nation, and is consequently incapable of undertaking great military operations; that for the last forty years she had been engaged in mercantile pursuits, and neglected to provide for the eventualities of a war, and therefore that it was a palpable act of injustice to charge upon the Ministry of the day the inevitable consequences of this national neglect.

These gentlemen were, and are evidently ignorant of the fact, that nearly every great mercantile undertaking in which this nation has embarked for these

last forty years, has more immediately tended to develop our military resources, than the efforts of any other nation have effected for them; our successful mercantile speculations have brought to this nation a wonderful accession of wealth; the late discoveries of gold, both in California and Australia, have placed at our command an amount of specie that has enabled the Government of the day to contract loans on terms never before dreamt of. The first great necessity for war is money, for with an unlimited command of capital every other requisite can readily be obtained; never was there a nation so favoured by Providence before. Antecedent to these wonderful discoveries of gold, the entire produce of the mines of the world did not exceed £8,000,000 per annum, but two years before the late war was declared, the mines of Australia and California yielded collectively £40,000,000! and the major part of this vast amount of specie had found its way into the pockets of our capitalists.

Our great national undertakings, in railroads, electric telegraphs, and ocean steam navigation, had long previously justified us in disregarding distance, and enabled us to resolve all questions upon war to the one element *time*, and therefore led us to regard without any feeling of anxiety, the demands of a war that were to be supplied by such facile stages, as from England to Gibraltar, Gibraltar to Malta, Malta to Constantinople, and Constantinople to Balaklava.

It is perfectly incomprehensible to me, whilst living in an age of such great commercial enterprise, that any parties should appear to be blind to their advantages, and should fail to perceive how instantly, as if by magic, all these great establishments could be made available for the purposes of war; all the collective military establishments of the world cannot be compared with them! what vast iron mines! what vast coal mines! has not private enterprise brought into full working order;—what vast armies of skilled workmen has not the same private enterprise for years, daily and hourly employed;—what economy of labour has not enterprise effected by machinery;—until the physical force of this country, as displayed through the magnitude of her undertakings, bids fair to rival the collective energies of the world.

Who more competent to cast any number of 18-inch mortars than those who, for years past, have employed thousands of workmen in the far more difficult operation of casting 60 and 100-inch cylinders?

Who more competent to construct any amount of gun-boats, mortar-vessels, and floating batteries, than the innumerable private firms, who have launched those magnificent steamers, which Government have employed for the transport of our troops; all that was needed to have given life to the whole, was *one, single, Head*, with capacity enough to conceive an enterprise worthy of the occasion; and with ability

and energy sufficient, to develop the nation's latent energies for war.

It is the unquestionable neglect of the unlimited resources of this country, which has given such just cause for complaint ; and the nation feel to a man, that it was the incapacity of their rulers, and not a deficiency of resources, that caused us to be dragged ignominiously at the chariot wheels of France, and to hold, in the eyes of all Europe, a secondary position in the late war.

But how could this nation be expected to develop her vast military resources when we had a Chancellor of the Exchequer, unwisely proposing to defray the expenses of the war with Russia out of the annual revenue of the country. The Ministry of the day neglecting immediately on the declaration of war to embody the Militia ; and to call upon Parliament for an act authorising the Government to employ them on foreign service ;* and the First Lord of the Admiralty, refusing to offer a bounty, to induce seamen to join Her Majesty's service ; hesitating to form a transport department, and to make the necessary provision for the expeditious coaling and dispatch of a vast steam fleet ?

A man less talented but more practical than the

* It is evident that the Duke of Newcastle's views with respect to Militia were overruled in the Cabinet, and that he was in no wise responsible for these measures.—See Evidence before the Sebastopol Committee, Ques. and Ans., 15,330. Third Report.

then Chancellor of the Exchequer would have formed a far more correct estimate of the pecuniary demand of such a war; he would have turned to former disbursements of a similar nature, and would have estimated the probable requirements of the future, from a mean average deduced from the past; he would, in fact, have obtained a mean average of the war expenditure between the years 1801 and 1815 to guide his judgment, and he would then have discovered that £45,909,937, was the probable amount which would be required for the navy, army and ordnance estimates if the war was not to be *starved*; the amount previously voted for the peace establishments being £16,325,675, the difference between these sums, viz. £29,584,262, would be the amount required to be raised by new loans or fresh taxation to meet the expenses of the war; that such estimate would have been a sound one is clear from the fact, that the entire sum demanded for the navy, army and ordnance estimates for 1855-56, amount to £37,427,003,* or £3,482,984 less than the mean average of fifteen years of the previous war, and positively £25,000,000 a year less, than the war expenses for 1813 and 1814.

It is in vain that the then Chancellor of the Exchequer should declaim upon the unprecedented

* It appears by the return of the public Expenditure, moved for by Mr. Wm. Williams, and printed 22nd July, 1856—that the positive expenditure for the year ending 31st March, 1856, was £47,461,188, or £10,000,000 more than the estimated sum.

expenditure of the late war, and delude himself with the belief that the public will acquit him of having failed to anticipate the necessary outlay, the above facts will prove that no man of common sense, ought to have anticipated a less expenditure, when it was known that the war was to be carried on at a distance of 3000 miles from England, that we were to lay siege to one of the most formidable fortresses in the world, supplied with every means necessary for its defence, and the operations conducted by the most able generals of an absolute and ambitious monarch.

I have stated above that the positive war expenditure for the years 1813 and 1814, irrespective of loans granted in aid of Foreign Allies, or "Miscellaneous Civil Services," was £25,000,000, a year more than the estimated war expenses for 1855-56; as very imperfect information is generally possessed on these points, I will here give the details.

1813. Navy, £21,833,522; Army, £44,241,285; Ordnance, £5,241,628—Total War expenditure for 1813, £71,316,435.

1814. Navy, £22,124,437; Army, £45,259,377; Ordnance, £4,302,893—Total for 1814, £71,686,707. With these facts before us, who can do otherwise than treat as mere idle declamation the assertions of the ex-Chancellor of the Exchequer as to the unprecedented expenditure of the late war.

It is important to bear in mind whilst considering this subject, that the entire population of the United

Kingdom, on whom the war taxes was levied in 1813-14, was only 18,547,720 ;—whilst, on the other hand, the census of 1851, gives 27,809,846 persons, or a population positively increased by one-half.—Yet the *mean* average amount of taxation paid annually by the people between the years 1809 and 1816 was £77,000,000.*—When we reflect on the enormous increase of wealth in this country, since 1816, and the bountiful harvests with which it pleased Providence to bless this kingdom during the continuance of the late war, it may safely be stated, that no Chancellor of the Exchequer, with the command of such unbounded resources, ever took so leading a part in an Administration, that effected such contemptible results.

In a previous portion of these observations, whilst comparing the relative rapidity and economy of land and water transit; I directed attention to the vast number of men and animals necessary to form a Land Transport Corps, and shewed how considerably the effective force of an army may be reduced by such means, and the great cost of such necessary establishments, both with respect to provisions and wages; that my estimate was considerably under the mark, the following interesting extract from the dispatches of the “Times” correspondent, whilst

* It is a curious fact that the taxes paid by the people were greater in 1815 and 1816 than at any period during the war.

1815	£85,115,542
1816	85,838,023

touching on the army's means of transport for 1856 will sufficiently attest.

“ Next year (1856) we are told, that the Transport Corps will consist of 19,000 men and 19,000 animals, for it has been found absolutely necessary to have one man for each mule or horse.*—The men will be furnished by the army to a great extent; as it is impossible to entrust the animals to many of those who are now employed, and I regret to say, that this remark applies, not only to Turks and Italians, but to Englishmen.

“ It may be objected, that such extensive draughts from the army, and such levies of the best men in the regiments, will be prejudicial to combatant efficiency, but then the most fighting army in the world is no good if not mobile, and it is wise to diminish its numbers—even by one half—if the act will enable the residue to march against the enemy.

“ It will be remarked, that the difficulty, at present, arises from the conveyance of necessaries (or of supposed necessaries) of life to the army, and that neither baggage of officers or men, nor warlike stores have to be carried to the front; what would the difficulty be if the corps had to carry baggage, tents, stores, ammunition, and commissariat supplies.”

Here then we observe, that a small army of men,

* The Army Estimates for 1856-57,—24,000 animals are stated to be the number required.

a force only *one-fourth* less than was despatched from England to invade the Crimea, and lay siege to Sebastopol, was for the campaign of 1856,—deemed necessary to be organised, in conjunction with an equal number of animals, to enable our army to take the field ; such number of animals, it will be observed, carrying 2 cwt. each, would only have been equal to the transport of 1900 tons of dead weight, or the cargo of one moderate-sized transport!—It certainly must strike the most superficial observer, that such number of men and animals would have been found perfectly unequal to the occasion, when he reflects on the exhausted nature of the Crimea, and knows, that in its most palmy days, just previous to our invasion, it was only cultivated by a population of 200,000 souls, requiring the most simple necessities of life, and whose small resources had, during the two last campaigns, been appropriated by a Russian army, fully equal to the entire population.

All who have perused with care Napier's Peninsular Campaigns, must have been struck with the immense requirements of the English and French armies, for means of transport, even whilst operating in the fertile provinces of Spain and Portugal, and yet large cities, towns and villages (in close proximity to these armies), with a collective population of about 13,000,000 of inhabitants were placed under contribution to aid with their resources.

One thing, however, is as clear as any proposition in Euclid, that either the 19,000 men and animals,

were far too small a Land Transport Corps, to meet the wants of an army that was expected to muster by the spring of the year 85,000 strong; or that our vast steam and sailing fleet of 217 vessels, of the aggregate burthen of 214,232 tons, which constituted our Naval Transport Corps during the two previous campaigns, was a prodigious waste of means.

I have demonstrated the very favourable position in which this country stood at the commencement of the late war in respect to money and shipping, together with all necessary means to produce any amount of munitions of war, had but the latent energies of our vast private establishments been duly developed; it now remains for me to direct attention to the physical resources of this nation in the personnel necessary to give life to the whole; but ere I dilate on the individual means of England, I will place before my readers the collective power of the Allies, and compare their numbers with the military resources of Russia; and thus, I trust, dispel the delusion under which many laboured, during the late war, as to the relative strength of the contending parties. To simplify the comparison I will take the population of each country in whole numbers, or to the nearest million.

The population of Russia, by the latest census, is stated to be 62,000,000, including Calmucks and other savage hordes acknowledging the sovereignty of the Czar, whilst Great Britain has a population

of 27,000,000; France 35,000,000; Turkey in Europe and Asia 35,000,000; and Sardinia 5,000,000.

Therefore, at the very commencement of the war in 1854, the two highly civilized kingdoms of France and England stood, as compared with Russia, in the ratio of 62 to 62 millions : the Allies concentrated and in the highest degree of civilization; the population of Russia widely diffused and in a most wretched state of barbarism; their numbers added to Turkey, raise the forces of the Allies in the proportion of 97 to 62, and, including Sardinia, as 102 to 62 millions; but, apart from all consideration of the enormous disparity as proved to exist by these figures, I ask why should every Calmuck be permitted to swell the numbers of Russia, and thus intimidate Europe, and yet, on the side of the Allies, not one man of the 119 millions of the British subjects in India, nor one of the forty-five other dependencies of Great Britain?

Yet many of these Colonial possessions directly contributed to supply the munitions of war, and their services immediately tended to increase our chances of success; the 121,928 inhabitants of Malta and Gozo, in immediate commercial connection with Sicily, served as one vast commissariat, and by the manual labour of the inhabitants materially expedited from that important centre all our naval and military operations; in support of this view of the case, I refer the reader to Marshal

Vaillant's interesting report to the Emperor of the French, wherein he states that our little island of Malta furnished 400 carts to their Land Transport Corps, or *one-sixth* of the whole as specified in that report.

In a military point of view it is not mere numbers that constitute strength, but numbers, together with the amount of civilization and condensation of the inhabitants; in these respects the Russian nation is infinitely inferior to the Allies, for the miserable Russian serf is about the very worst raw material for either the naval or military professions; and were it not that the general standard of education possessed by the Russian officers is *very high*, such a nation in arms would give but little cause for fear to civilized Europe.

The evident weakness of Russia, when acting on the offensive, is the direct consequence of the enormous extent of that empire in proportion to the number of its inhabitants; the following table, giving the area of each country in English square miles, the population, and number of inhabitants to each square mile, will enable me to establish the correctness of the above observations.

	Area in English square miles.	Population.	Inhabitants to square miles.
Russia	2,000,000	62,000,000	31
Great Britain and Ireland	120,723	27,452,000	227
France	203,736	35,400,000	173
Turkey in Europe	210,000	15,500,000	73
Sardinia	29,050	5,090,000	175

We observe, on inspection of these figures, that Russia has but 31 inhabitants for each square mile, whilst Great Britain and Ireland have 227; even Turkey in Europe, with its 15,500,000 inhabitants, has 73 souls to every square mile. These facts satisfactorily prove how exceedingly difficult it must be to maintain a Russian army in the field; for the means of transit, in so thinly populated a country, must be miserably deficient, and the supplies necessarily collected over a great extent of surface; the recruits drafted to fill the vacancies caused by the immense demands of war, have to perform enormous marches, and the time spent on the road must be lost in perfecting them in their drill and field operations. A march, for example, from Moscow to Simpheropol, being a distance of about 900 miles, would take ninety days, or three months from their instruction, and leave them at the end of such toilsome journey little fitted for immediate service; whilst the English recruits, after seventy days efficient drill at Aldershot, might, by the aid of steam, be conveyed to the Crimea in ample time and in high condition, to encounter such antagonists.

It has always been the policy of Russia to overrate her military strength, 800,000 or even 1,000,000 of men has been stated to represent her standing army, but the facts that have been brought to light since the invasion of Turkey in July, 1853, to the conclusion of the war in 1856, lead me to conceive that the tabulated data which accompany

the military chart of Russia in this pamphlet, will be found far nearer the truth ; this statement gives, in 1854, the effective strength of the disciplined troops of all arms and in all parts of the empire at 625,000 men. A reference to the map will show the great distance any one corps would have to march to the support of the other ; to the direct distance between any two corps, as shewn by the scale on the chart, one-eighth more must be added for the windings of the road ; thus with one leg of a pair of compasses at Moscow, the other at Nicholaïf, we observe that the direct distance is about 690 miles, add one-eighth, or 86 miles for the windings of the road, and the entire march will equal 776 miles, and supposing the corps to march 10 miles a day without a halt for the entire distance, the time occupied in moving such body of men complete and ready for battle would be 77 days.

The amount of the Turkish forces, at the time when Omar Pacha commenced the campaign, was estimated as follows :—120,000 men in Bulgaria, between the Balkan and the Danube ; 15,000 in Bosnia and the north-western provinces of the Empire ; 6000 on the Servian frontier ; 50,000 in Roumelia around Adrianople ; and from 80,000 to 100,000 in Asia : making a total of 250,000 under arms.

In making the above comparison, I have endeavoured to ascertain the effective forces in the field, and not the mere statement of such forces upon

paper. Sir Hamilton Seymour submitted two estimates of the strength of the Russian armies to Government. The first despatch to the Earl of Clarendon is dated Oct. 27th, 1853; the second, the 9th of January, 1854. This second estimate, even upon paper, would not have increased the Russian army to 800,000. I have equally rejected the Turkish estimate on paper, which, inclusive of the Nizam, Rédif, Auxiliaries, Irregulars, and Constabulary, have been stated to amount to 540,000 men.

We must always bear in mind the enormous length of the marches performed by the Russian troops, whilst acting on the offensive in the Principalities, and no less arduous journeys that were undertaken whilst moving to the relief of Sebastopol. It is these lengthened marches through thinly populated districts, that serve so effectually to disorganize an army, and cause such a fearful diminution in their numbers.

A very able writer, in his "History of the Russian War,"* states:—"The advanced guard of Osten-Sacken's corps arrived at Bucharest in miserable condition, having been forced to march during fifty days over the worst roads in pelting rain, and falling in fearful numbers by the way; the poor fellows, too, after barely three days' rest, were ordered on to Kalafat—a further distance of 200 or 300 miles." As this corps is stated in Sir Hamil-

* Chambers' History of the Russian War.

ton Seymour's dispatch of the 27th October, 1853, to be in cantonments between Kieff and the Pruth, they had about 500 miles to march in the depth of winter to reach Bucharest; and this being accomplished in fifty days, gives an average of about ten miles in twenty-four hours. Such laborious marches in the depth of winter must necessarily be undertaken by the Russian troops, when endeavouring to defend so vast an empire from the attacks of a nation which holds uncontrolled dominion of the sea.

The relative strength of the opposing armies in 1854, may be taken as follows:—

<i>Allies.</i>		<i>Russian.</i>	
Turkey . . .	250,000	Russian . . .	625,000
France . . .	570,000		
England * . .	162,000		
	<u>982,000</u>		

On no sufficient data should I feel myself justified in believing that the Russian forces exceeded 700,000 men.

Early in 1855, Sardinia joined the Alliance; her war establishment numbers 85,000 men, of which 15,000 formed her army sent to the Crimea.

I have given above a concise summary of the strength of the several armies in 1854, ere England determined to act with energy. The estimates

* The 162,000 includes 29,000 men paid by the East India Company, which are considered as much available as an equal number of the Russians.

shew at what a snail's pace she embarked in the momentous struggle, which terminated so little to her individual credit. The Government of the day decided upon having a little war, and the result was such as had long previously been foretold by the late Field-Marshal the Duke of Wellington.

The amount of troops asked for by Government, in the estimates for 1854-55, being but 163,251 * men, without any estimate for Embodied Militia or Foreign Legion, was sufficiently indicative of the helpless position in which we were drifting into war.† Great objects were sought to be attained by insignificant means, and men whose hearts were not with the nation in that honourable cause, had yet the unfortunate ambition still to direct the war, until Mr. Roebuck, acting for the public, demanded a Parliamentary investigation, when, on grounds by no means justifiable, these gentlemen retired from the service of their Queen and country.

In the above estimate of the relative strength of the contending forces, I have shewn that Russia was considerably inferior to the Allies in numbers at the very commencement of the war; that her population would bear no comparison with that of

* This includes 20,475 in the Ordnance Estimates but not the troops paid by the Hon. East India Company.

† It is worth observing that the expenditure for the year ended 31st March, 1855, was only £28,321,707; 31st March, 1856, £47,461,188.

the nations arrayed against her; that her geographical difficulties of position, and limited means of transit, offered such serious impediments to her free action, that defeat was certain, and, consequently, that we might have dictated any terms of peace, had but the war from its commencement been pushed with an energy proportionate to the military resources of this great country.

It is palpably absurd to talk of the immense advantage that Russia possesses in an ability to impress men, such means have a defined limit, viz. the extent of her population, and the serious curtailment in the number of recruits, ere they reach the army, from the distance and difficulties of the journey, and the well known venality of her officials.

The enormous amount of labour performed in this country by steam machinery, must always be carefully considered when our resources are compared with Russia or with any other nation; it has been computed that the amount of coal consumed annually, and which is still on the increase, does each year the work of 8,000,000 of men in the fulness of health and bodily vigour.

The means of internal communication in this country is perfect, steam enables us to transport with ease and rapidity, from the very centre of England to any port on the coast, all the munitions necessary for war. In the very able address of

Mr. Robert Stephenson, President of the Institution of Civil Engineers, to the members of that body in 1856; it is stated, that the railroad companies employ 90,409 officers and servants; that the annual consumption of coke by railway engines equalled 2,000,000 tons of coals, and that the steam evolved is adequate to the maintenance of stationary engines of 130,000 horse power; that the average number of passengers conveyed daily is 300,000, and the average distance each passenger travels a day is 12 miles. Under the old system 10,000 coaches, and 120,000 horses, would have been necessary for this daily traffic. The financial result of our railways is no less remarkable; in the aggregate £20,000,000 of revenue are now realised annually by the railway companies of the United Kingdom. Mr. Stephenson states with truth, that the enormous amount of traffic represented by this £20,000,000 could not have been accommodated at all under the old system; but assuming this, it is certain that the accommodation could only have been offered at more than three times the charge now made by the railways; thus a saving of £40,000,000 annually has been realised in the labour market, under this one head, since the previous war in 1815.*

* See Address of Robert Stephenson, Esq., M.P., President of the Institution of Civil Engineers, Session 1855-56.—Printed by William Clowes and Sons, Charing Cross.

I will direct further attention to this line of argument, by considering the physical force of the steam marine employed in the Naval Transport Service, as shewn by the official return. The nominal horse-power is there stated to be 26,000 horse, and, on an average of the whole steam power employed, I shall consider the *real* power of the engines to be three times that of the *nominal*, therefore the actual power employed is 78,000 horses; but as a horse with which the engine is compared can only work for 8 hours in the 24, whilst the engine continues at work throughout the day, we must multiply 78,000 by 3, and we then perceive that the aid rendered to the country by steam in this particular instance is equal to the work done by 234,000 horses.

Moreover, it is both an interesting and an important feature in this comparison, that steam horses-power only require feeding in proportion to the work done; for example, the power required to be put forth by an engine is as the cube of the velocity in a given time, but the consumption of fuel is only as the square in a given distance; therefore, if two vessels equal in every respect run at the relative velocities of 8 and 10 miles an hour, the consumption of fuel will be in the proportion of 64 tons to 100 tons in 24 hours.

It is difficult to determine with precision the exact amount of economy of labour effected by the

use of steam machinery, for it is rapidly displacing manual labour in the manufactory of nearly every requisite for war ; it therefore sets free our population for the more direct military purposes, and enables us to engage in a contest with a nation considerably superior in numbers with every certainty of success. Moreover, the world and its resources are open to that nation which holds undisputed dominion of the seas, and which by the aid of so rapid and economical an agent, can gather from all quarters of the globe, where most convenient, the several supplies necessary for the maintenance of an army in the field.

It is perfectly clear, from the enumeration of the above facts, that our 40 years of peace had done wonders for this nation, and that, in 1854, we stood in a singularly favourable position for engaging in a contest, however gigantic ; during the above-named period we have added enormously to the wealth of this country ; the population has increased from 18 to 27 millions ; railroads and electric telegraphs have annihilated time and distance within the United Kingdom ; whilst ocean steam navigation has played nearly an equal part in connecting us with our vast colonial possessions ; from all of which we derive those supplies that materially serve to lighten the burthens of war.

This vast Empire has an area of 8,000,000 Eng-

lish square miles, and is peopled with 183,000,000 of inhabitants that acknowledge the sovereignty of our Queen;* an area four times as large, and a population three times as great, as the empire of the Czar; and yet every portion of this immense territory has been brought, by the aid of science, into far more immediate contact than the unwieldy dominions of Russia. We have not, therefore, violated the principle laid down by Augustus Cæsar; Russia has;—we can defend every portion of our vast empire; Russia cannot.

It is far more advantageous to this country to raise men by a bounty than to enforce their services, for those only are likely to be withdrawn from other pursuits whose labours are as unprofitable to themselves as they are to the nation. The demand of war on the population of this country is after all not great, and is as nothing when compared with the emigration that has existed ever since 1815, but more especially since 1850. Lord Panmure, in his official report of losses in the Crimea, from the 19th of September, 1854, the day on which our army first engaged in action, to the 31st of March, 1856; states, that the total loss of officers and men killed, or who subsequently died of their wounds, or were discharged as unfit for further service was 22,467, which is at the rate of 1,248 persons a month, for

* See Maunder's Treasury of Geography, latest Edition, October, 1856, page 157.

these eighteen months of the war. Now, according to the Emigration Commissioners, the mean average amount of population that has left this country annually since 1815 to 1855, is no less than 104,726 souls; and the mean average for the five years ending 1855, comprises the vast number of 306,980 persons; if we take one-third of these to represent the able-bodied men in either case, we observe that for 40 years this country has suffered an annual diminution of 84,908 able-bodied men; and for the last five years 102,327, without any other result than that of mutual advantage to all parties.*

The beneficial result of a liberal bounty in obtaining soldiers and seamen is twofold, for it secures not merely a greater number but a superior class of recruit. The charge is only in the first outlay; for, whilst the cost of wages and provisions for the maintenance of the soldier, or sailor, is an annual demand, the amount charged for a bounty is only paid once during the man's life.

It is essential for the maintenance of the ambitious views of Russia that she should keep on foot a large standing army, for she requires a lengthened period of preparation to organize an efficient body of men, and convey them to the seat of war; but no such lengthened period is necessary for England, if false principles of economy be not permitted to

* See Colonization Circular. Issued by Her Majesty's Emigration Commissioners for 1856. Page 2.

paralyze the resources of this nation. The soldier and the sailor has his market value, and his services must be purchased at a fair market price; it was a pitiable policy that dictated the refusal of a liberal bounty to seamen, as well as an adequate compensation to the soldier for his services in the field. Sir James Graham, and Rear-Admiral Sir Maurice Berkeley congratulated the country on their administrative economy when they adopted a voluntary enlistment; yet it is evident that such policy effectually starved the war, and prevented our seizing upon Kertch and the Sea of Azoff simultaneously with the plateau to the southward of Sebastopol and the harbour of Balaclava. The continued cry of our Admirals and Generals was for men, men, men, and the deficiency of men was one of the primary causes of all our disasters. Todleben defended Sebastopol with the aid of 10,600 seamen and 3000 marines; what was there to have prevented this nation from having at command three times that number of men for any detached operation? Nothing but the refusal of a bounty.

I have shewn the vast amount of emigration from this country from 1815 to 1855. I have shewn the enormous increase of our mercantile shipping, and consequently, that of the *seamen* since 1815, but more especially since 1850. The effect then of a bounty and an adequate demand on the shipping world, for the means of transport for our army to the Crimea in 1854, would hardly have interfered

with the commerce of the country, but would have only served to stay that vast exodus, a result much to be desired at such a period.

I will now place before the reader the amount of expenditure for the war for the years 1854 and 1855, as shewn by the return moved for by Mr. William Williams, and dated the 22nd of July, 1856. 1854: Army £8,380,882, Navy £14,490,105, Ordnance £5,450,720; total £28,321,707. 1855: Army £17,395,059, Navy £19,654,585, Ordnance £10,411,544; total £47,461,188.*

A glance at these figures will sufficiently demonstrate how fractional would have been the additional expense to this country consequent on the payment of a liberal bounty; and the beneficial results that would have flowed from such sound policy no man gifted with plain common sense will question for an instant. An adequate compensation would doubtlessly have drawn a large body of seamen from the American mercantile marine, as it has been computed that 30,000 or 40,000 British sailors are employed in the shipping of that country.

With an abundant population available for the purposes of war, it is painful to reflect on the want of energy and foresight displayed by Lord Aberdeen's Government in making the necessary provision to reinforce our army in the field; 25,000 men may be said to have been absolutely thrown

* The Expenditure is given for the years ending the 31st March, 1855, and 31st March, 1856.

on the shores of an enemy's country 3000 miles distant, without an apparent effort being made to form an army of reserve for their support. Nearly all the old soldiers were withdrawn from the country, without one energetic step being taken to replace them, or even to provide for the heavy casualties that might have been expected to arise from the twofold operation of opposing the enemy in the field and laying siege to Sebastopol.

It was not until the 6th of November, the day subsequent to the second or great battle of Inkermann, that it can possibly be discovered from a perusal of the evidence before Mr. Roebuck's Committee, that any effective steps were taken by the Government to meet the crying wants of the army for men.* More than seven eventful months had thus been permitted to elapse since the declaration of war. The fine army dispatched from our shores had been all but annihilated, when Mr. Sidney Herbert at length deemed it necessary to awaken his colleagues by penning three documents, dated respectively the 6th, 23rd, and 27th of November, recalling to their recollection the apparently almost forgotten fact, that we had a force in the field, and the imperative necessity that existed for embodying the militia to furnish them with recruits, ere the last soldier should be swept from the ranks.

Simultaneously with the appearance of these do-

* See Appendix, No. 11, of the Minutes of Evidence before the Select Committee of the House of Commons, Fourth Report.

cuments the bounty was raised to an amount that ought to have been the minimum from the very commencement of the contest; the effect of these joint measures was instantly perceptible in the rapid increase of the strength of the army. Appendix, No. 14, of the Fourth Report,* proves that the average number of men enlisted from the 1st of March to the end of October, 1854, was at the rate of only 2,729 per month, whilst for the five months subsequent to the embodiment of the militia and the increase of the bounty, the average monthly enlistment was 5,423,† or within a fraction of double the previous monthly average; there cannot exist a doubt on the mind, that had the militia been called out for exercise in February, and embodied on the declaration of war, a far higher monthly average than is here shewn would have been obtained. However, it is clear by the ratio of increase, as proved by these figures, that we might have obtained 21,552 additional recruits previous to the great battle of Inkermann, had a system so consistent with the exigencies of the service been earlier put into practice.‡

* See Evidence before the Sebastopol Committee.—Appendix to Fourth Report.

† It is satisfactorily proved by the evidence of the Duke of Newcastle, that he had at a far earlier period advocated an increase of the bounty, but that his views were *again overruled*.—See Evidence before the Sebastopol Committee. Third Report, Question and Answer, 15,328, 15,329.

‡ In March, 1854, the standard height for Infantry was 5 ft. 5½ in. ; on the 30th of October it was lowered to 5 ft. 4½ in. ;

The nation has been made to pay severely for that miserable economy which sought to obtain the services of the sailor and the soldier without an adequate compensation ; no portion of a man's pay can be justified on sounder principles of economy than this very bounty, for the money would naturally return to the pockets of the nation by being spent in the country ere the soldier goes forth to face the enemy in the field, or be left as maintenance for his family, and thus prevent them falling a burthen on the parish. A liberal bounty provides, moreover, a more effective servant for the Crown, and in war it is only by an ample command of men that operations before the enemy can be conducted in a manner that will lead to the saving of life.

It is important that the public should clearly perceive the consequences of this economy. I will, therefore, lay before the reader a few facts connected with the mortality in our army. The Registrar-General, in his Seventeenth Annual Report, states that the mean strength of the British forces, *officers* and *men* in the Peninsula, was 66,372 ; the deaths during the 41 months that ended May 25th, 1814, were 35,525, of which only 9,948 happened in battle, or as the consequences of wounds. 225 per 1000 of the 61,511 *men* were on an average upon the sick list ; and the annual mortality was

on the 19th of December to 5 ft 4 in. For the month of October, only 2,091 recruits were obtained ; in November, 5,374 ; December, 6,600, for all arms.

at the rate of 161 per 1000, and the Registrar-General in this same report makes the following remarkable assertion, that the annual mortality of men in civil life at home of the corresponding ages, is at the rate of 9 in 1000—here then we have the awful fact, that the deaths in the army stood, as compared to civil life, at the rate of 161 to 9 in every 1000 !*

It is now my painful duty to prove, on the authority of Lord Panmure's report, that our losses in the Crimea, consequent on the parsimony of our rulers, were even more disastrous than those in the Peninsula. The Noble Lord informs us, that from the 19th of September, 1854, the day on which the army was first engaged in action, to the 28th of September, 1855, there were 158 officers and 1775 men killed ; died of their wounds, 51 officers and 1548 men ; died of cholera, 35 officers and 4244 men ; died of other diseases, up to the 31st of December, 1855, 20 officers and 11,425 men ; died of their wounds up to the 31st of March last, 322 men : making a total loss by death of 270 officers and 19,314 men.

In the same time there were discharged from the service, as incapacitated from disease and wounds, altogether 2873 men ; making a total loss of 22,467 men killed, died of their wounds, and discharged up to the 31st of March, 1856.†

* See Seventeenth Annual Report of the Registrar-General, page 52.

† Statement of Lord Panmure, May 8th, 1856.

We observe, in comparing these two statements, that in 41 months in the Peninsula, 35,525 men died, being at the rate of 866 per month; whilst in the Crimea, in 18 months, 19,580 officers and men died, or 1087 per month.

As Lord Panmure does not give the mean strength of the army in the Crimea during these 18 months, I am not able to continue the comparison, but I would direct attention to the fact, that whilst in the Peninsula, nearly two-sevenths of our losses were in killed and wounded, in the Crimea it appears we experienced a diminution of but a little more than one-sixth under that head; the collective evidence of all the officers examined before Mr. Roebuck's Committee, proves the fact that the sufferings and mortality of the army were mainly traceable to over-work.

With these disastrous truths on record we find Rear-Admiral Sir Maurice Berkeley boasting to a British House of Commons, that he had not only refused a bounty to induce seamen to enter Her Majesty's service, but that he had positively raised the standard height of the seamen, and had refused to receive volunteers for the navy under 5 ft. 8 in. Nero fiddled whilst Rome was burning, and by Sir Maurice Berkeley's own statement we learn that he was engaged in measuring the respective heights of our seamen, whilst thousands of his countrymen were dying from overwork.

Fortunately for the success of the campaign, Marshal Vaillant was not smitten with the same

extravagant notions, for it is stated that only 40 men in every 1000 in the French army are 5 ft. 8 in. in height.*

On the 3rd of November, only two days before the great battle of Inkermann, Lord Raglan writes home detailing the important arrangements he had made to secure the Port of Balaclava from an anticipated attack, and concludes his dispatch by stating "I should be more satisfied if I could have occupied the position in considerably greater strength." Little did that Noble Lord think that whilst he felt so anxious for the security of his army, an officer of Her Majesty's Government was engaged in measuring the height of our Blue Jackets, instead of endeavouring to place at his disposal 10, or 15,000 men, to strengthen the force of British Seamen and Marines, that had been landed by the Naval Commander-in-Chief, to take part in the siege, and co-operate in the defence of that very harbour of Balaclava.

No folly could surpass that which raised the standard height of the seamen, at the very moment when the nation stood in the greatest need of men. Captain A. Milne gave as evidence before the Committee of the House of Commons, that the Board of Admiralty had experienced the greatest difficulty in 1854 to man both the Baltic and Black Sea

* See The Statistical Companion for 1852, on the relative height of the Soldiers of the English and French Armies, page 35.

fleets.* Mr. J. C. Banfield, Statistical Clerk to the Council of Education, asserts that in 1852 only 252 men in every 1000 of the British army were 5 feet 8 inches in height; the French nation would have had no army at all, if Sir Maurice Berkeley's erroneous views had been entertained by the French Minister at War; for on Mr. Banfield's authority the following are the principal heights of the men in the French army:†—

Height.	Proportion.	Per Thousand.
5 ft. 1 inch . . .	62 . . .	1000
5 ft. 2 inches . . .	156 . . .	1000
5 ft. 3 „ . . .	187 . . .	1000
5 ft. 4 „ . . .	178 . . .	1000
5 ft. 5 „ . . .	152 . . .	1000
5 ft. 6 „ . . .	107 . . .	1000
5 ft. 7 „ . . .	69 . . .	1000
5 ft. 8 „ . . .	49 . . .	1000

Surely the English soldier, but more especially the sailor, might at all times during war be enlisted at a standard not inferior to that of the French army. So low a standard, however, would rarely be necessary, as the mean average height of the English nation is considerably greater than that of the French; and yet in the field of battle no Russian forces have proved themselves to possess any physical advantage over the French.

It was not until the 19th of December, 1854, more

* See Evidence before the Sebastopol Committee. Third Report, No. 16,696.

† See Statistical Companion for 1852, page 35.

than a month subsequent to the *second* or Great Battle of Inkermann, that men, or *even* lads, were admitted into the English army at the standard height of 5 feet 4 inches.* How effectually the war was starved by such act, the comparative heights of the French army, to whom the capture of the Malakoff was due, will clearly demonstrate.

It is not so much the height as the efficiency of our sailors and soldiers that ought to have been considered ; when large bodies of men have to operate together, their general effective organization and thorough knowledge of the use of their arms ought to be the primary consideration.

When I drew up the plan for an attack on Cronstadt, I regretted to observe that we had not even at the expiration of the *second* year of the war an effective reserve of British seamen. Such reserve ought to have been formed from the very commencement of the war ; well drilled in field operations, musket, great gun, and boat exercise ; and held ready prepared at a moment's notice to be drafted as crews for our gun and mortar boats.

Never was economy so misplaced as that of the refusal of a bounty, for never was the nation more ready to part with any portion of its abundance to uphold the honour and dignity of the Crown ; and the enormous accumulation of wealth in this country since 1815, would have rendered the million or two

* See Fourth Report of the Sebastopol Committee, Appendix No. 14, page 353.

necessary to give support to the war, a consideration not worthy of a moment's reflection. The author of "The Kings of the East," a curious and able composition, makes some remarkable extracts from Mr. Potter's work of "The Progress of the Nation," wherein he shews an increase of One thousand millions in the value of *personal* property, during the first thirty-one years of peace, commencing at 1814: the author writes, "According to these calculations, which are made by the most competent authority in the country, owing to Mr. Porter's access to the information collected by the Government, it appears that the *real* and *personal* property has *increased* two thousand millions sterling since the close of the war. The total amount of the value of each description of property, personal and real, is estimated as follows in 1845:—*

Of real property . .	£2,382,112,425
Of personal property .	2,200,000,000
	<hr/>
Total . .	£4,582,112,425
	<hr/>

The amount given as the value of real property is only for that portion of it in England and Wales, which yields a rental over £150 per annum. The personal property is estimated for Great Britain, but does not include Ireland. Were these omissions added to the above estimate, it does not appear improbable that the whole property of the country,

* See Second Edition, "The Kings of the East," page 61.

real and personal, would be found to have been doubled since the peace in 1815."

The reader will observe, that this estimate of the wealth of the nation on Government data was made in 1845; nine years before the declaration of war with Russia, and six years before the discovery of gold in Australia.

I will select another paragraph or two from this interesting work, in support of the correctness of Mr. Porter's estimate of the resources of this country; it purports to be an extract from the Report of the Committee of Foreign Relations of the House of Representatives at Washington, February, 1841.

The author states, the Report, after referring to the military position of the British at Bermuda, and her growing power in the West Indies, proceeds to notice her movements in other parts of the globe as follows:—

"At this moment she presents to the civilised world the spectacle of the greatest military and commercial power in combination ever known."

"From her vast possessions in every quarter of the globe, and her peculiar commercial system, she has been made *the reservoir of the wealth of nations.*"

"Her internal resources, skill, labour, and machinery, with her capital are *beyond calculation.* Her natural position being about midway on the coast of Europe, gives her great control over the outlets and currents of commerce. Her positions

all over the world are, at this moment, in a military point of view equal to 1,000,000 *of men' under arms.*"*

I wish to direct the attention of the reader to the fact, that this Report of the Committee of Foreign Relations of the House of Representatives at Washington is dated February, 1841 ; thirteen years before the declaration of war with Russia, and years previous to the enormous expansion of our trade, consequent on the discoveries of gold in California and Australia, to which I have more especially directed attention in this pamphlet.

If such then be the vast military resources of this country, how utterly have we failed in ability to develop them, and what little cause have we to congratulate ourselves on the talent and energy displayed even in the use of those means which we did employ. Never was there greater necessity for arranging a clear general plan of campaign, as it was evident that we must commence the war with our forces in an imperfect state of organization.

The leading cause of all the mismanagement owes its existence to the fact, that instead of initiating a plan of campaign at home, we were looking to our Admirals and Generals to furnish us with one from abroad ; I contend that no single Admiral or General, whose attention is circumscribed by the limited sphere of his own command, could have materially served the nation in this matter ; for a general plan

* See "The Kings of the East," Second Edition, page 65, 66.

of campaign against Russia, could *alone* be based upon a perfect appreciation of the *joint* naval and military resources of the Allies as well as those of the enemy; and our operations in the Black Sea and in the Baltic, ought to have been directed in such a manner as to insure a harmony in their action.

The experience of all wars have proved, that no army can operate in the field without an efficient Commissariat, and that every celebrated General has been as much distinguished for his ability in provisioning his army as for the talent displayed by him in the field of battle; if such knowledge, however, is necessary in an executive in command of an army, I hold that a clear comprehension of all such details ought to be possessed by the Government at home; for long ere a Commander-in-Chief and a Commissary-General can be selected, matters of such vital importance to the success of our operations, ought to have been considered in all their bearings, and adequate provision made to meet the peculiar features of the case.

An empire of such enormous extent as that of Russia, offers many vulnerable points of attack; no provision could be made with even a million of men under arms, to defend so vast an extent of frontier, against so powerful a maritime nation as England, especially when the Black Sea as well as the Baltic afforded such varied fields for our operations.

No body of men can be entitled to the appellation of statesmen, or qualified to direct the operations of

a great war, who are ignorant of the resources of their own country, as well as of those of the enemy, and yet such ignorance is sure to be displayed when mere family connection, or political influence, are the only rapid and certain roads to advancement in the service of the State; one incompetent individual at the head of a Department will be the cause of more national disgrace during war, than a host of incapables in inferior positions, for it is unquestionably true, that *a very* moderate amount of talent, is alone necessary to carry out the details of any service, when the line of instruction is clear and precise.

A noble Earl stated in his place in Parliament, that a man would be nothing short of a traitor to his country, who would permit political influence to warp his judgment in the selection of officers to fill situations of responsibility during war; and yet, in the face of this declaration, which no person can for an instant controvert, a First Lord of the Admiralty, at a political dinner, boasted not of the talent of his Admirals, but of their politics; and within one short twelvemonth this patriotic man shewed a cold shoulder to one of the objects of his panegyric, and exercised all his talents in debate to blast the reputation of the other; thus in the eleventh hour stultifying himself before the whole world, by declaring that he had discovered he had made a false selection for so important a command as that of the Baltic fleet.

The Right Hon. Baronet can be proved, how-

ever, to have been still more singularly unfortunate in his judgment in other cases, which were not themes of former panegyrics, for the naval profession as well as the nation will not fail to remind him, that neither in the Pacific, nor in the Indian seas, during *his* administration, was the ancient glory of our arms upheld.

It has been deemed Utopian to expect a Government, to be competent to select men of ability for the several offices of the state, and yet experience proves that few errors of this nature are committed, by bankers, merchants, engineers or contractors, in the selection of parties for the conduct of the many vast operations with which they severally are concerned; and why? because the fortune or success in life of the individual is dependent upon his choice. Let the same system be put in force in regard to the head of a Government Department, hold *him* responsible to the nation for the success of his subordinate, and never let a Minister compound with the country, for his retention of office, by the sacrifice of the individual who has been the deliberate object of his selection.

As a maritime nation conducting military operations at a great distance from this country, our army must often be mainly dependent for its existence on our navy; under these circumstances, it is vital to the success of our measures, that the Naval Commissariat should be directly under the control of the Minister for War; and that can only be effectually

accomplished, by remodelling the Naval Department, and by removing from its head, a mere political partizan, destitute of all scientific and practical knowledge of the profession, and placing in his stead a Naval Commander-in-Chief, capable of affording the highest amount of professional information to the Minister who represents the Cabinet, and who is responsible in the eyes of the nation for the conduct of the war.

At present, there are two Departments virtually antagonistic and constantly acting upon principles at variance with each other; hence, whilst the Minister for War was increasing the bounty, and lowering the standard of the recruits for the army to 5 ft. 4 in.; the Naval Department was refusing any bounty, and raising their standard to 5 ft. 8 in., so that for want of mutual co-operation, our overworked, and debilitated soldiers were left to perish by hundreds in the trenches.

There appears strong reason to believe, that the Board of Admiralty, acting under the authority of a co-equal Minister of the Crown, never in reality approved of the landing of the seamen and marines on the requisition of Lord Raglan; for the Board certainly never took any active or energetic measures to strengthen a force whose perfect efficiency so materially served to lighten the duties of the soldiers in the siege, and to uphold in the field of battle the honour and dignity of our arms.

But all parties seem to have been disinclined to

adopt measures however valuable, not emanating from themselves, in proof of which I relate the following anecdote.—

A gentleman, just returned from the East, and who, during his tour in Turkey, had the advantage of the society of a celebrated and experienced traveller in those regions, conceived it his duty to wait upon the then Commander-in-Chief at the Horse Guards, ere our troops left these shores, to suggest the propriety of providing, by orders given at home, carts, horses, &c. &c., to form the nucleus of a Land Transport Corps, to enable our army immediately on their arrival to take the field; and thus free the Commander-in-Chief abroad, and the Commissary-General, from a fruitless dependence on the resources of that country; dwelling with effect on the imperfect state of transport in that semi-civilised region, and its limited resources, already over-taxed, to supply the demand of Omar Pasha's army; the tourist described the means of transit to be inferior to that of Great Britain a century ago. The adage tells us that "proffered advice stinketh," and so thought the Commander-in-Chief, who replied, with a complacency natural to superior knowledge, that we did not send means of transport to the Peninsula in the Great Duke's time—ergo, there could be no such necessity for it now.

The gentleman, however, was not so readily silenced, and laboured to demonstrate that no analogy existed in the two cases, for that in Spain and

Portugal were to be found some of the finest animals in the world ; that the thoroughfares were in a measure better, the country generally more civilised, and also that the standard of the mechanical sciences was superior in every respect ; adding, that despite all these advantages, even the Duke had taken a long while to organize his Commissariat.

On the other hand, he argued that steam ships were virtually unknown in 1808, that railroads and electric telegraphs had not even been dreamt of, that the average size of the transports did not then exceed 230 or 330 tons, and that a vessel of 500 tons burthen was a rarity ;* in truth, that every thing had been changed since the period alluded to ; consequent on the vast increase of the size of our transports ; the improvements in ship-building, and the introduction of steam as a motive power ; and added, moreover, that we ought to consider how economically vehicles could be constructed in England, of a far more durable nature than those of Turkey ; such conclusive reasoning was, however, lost on the hero of ancient days, who seemed determined not to keep pace with the times ;—and our energetic tourist left his presence, with the words Peninsula, Peninsula, Peninsula ! to haunt him in his dreams.

* Captain A. Kellock, of the Himalaya, stated in evidence that French Transports during the Russian War were *very small* in comparison with the English, varying from 150 to 300 and 400 tons.—See Third Report, No. 5058, page 233.

Now let us consider the value of the proposition made, and the imaginary nature of the difficulties which surrounded it. I have proved in page 7, that a steamer of 2500 tons burthen will convey one man and 7 cwt. of munitions of war 240 miles for 5 shillings, which is at the rate of $\frac{1}{4}d$ per mile ! This same class of steamer has been proved capable of carrying 250 horses, 250 cavalry soldiers, and 500 tons of munitions of war, at the rate of 240 *nautical* miles in the 24 hours, and at a cost of £380. per day.

It is clear from the items above-mentioned being composed of horses, men, and munitions of war, that the entire charge for the expenses of the vessel must necessarily be divided under three several heads, a steamer passing through the water at the rate of 240 nautical miles a-day will in 14 days accomplish a distance of 3360 miles, which is as nearly as possible the exact distance between England and Balaclava.

The daily cost of such vessel to Government being £380, the entire voyage would cause an expenditure of £5,320, to be divided under three several heads, of which £1,500 is due to the cargo, £875 to the men, and £2,945 to the horses ; therefore each horse will cost about £12 for its conveyance to Balaclava or Varna, the distances being nearly equal. The space demanded for the fodder for the horses for a voyage of fourteen days, is an item of such fractional importance in a vessel of 2500

tons burthen, that I have hardly deemed it necessary to mention it, for if we allow 20 lbs. of hay and oats a day for each animal, the whole quantity required will only be 2 tons, or 28 tons for the voyage of fourteen days. With respect to water for the animals, in all *well arranged steamers* conveying horses or men, three times the quantity necessary ought daily to be *condensed* from the sea water, as has been for years in practice when the least foresight has been shewn. It is evident that the Commander-in-Chief of the army at the Horse Guards was totally ignorant of this immense revolution in war, which our forty years of peace had effected for the nation.

As a far greater estimate has been made of the cost for the transport of animals to the seat of war, I wish to point out that even if neither cargo nor men were taken, the sum cannot exceed £21 a-head, for that will repay the entire cost of the vessel to the Government, coal included; and which estimate has been made by taking the *highest* amount of freight charged during the war,* and, as I conceive, rather *too great* an average charge for the cost of fuel per ton.

It is obvious that a vast economy is effected by a judicious mixture of the cargo, but even a still greater saving could be obtained, at a very small sacrifice of the mean speed of the vessel, by directing every steamer so employed to tow a fine clipper-

* See Capt. A. Milne's Evidence, Third Report, No. 16,685, page 289.

built sailing ship, of about one-third of her own tonnage, which vessel could be laden with commissariat carts, &c. &c.; less than one mile and a half an hour would be the average loss of speed on the entire voyage, therefore the steamer would not be retarded more than three days in a run of 3360 miles; whilst the average passage of the sailing vessel to Varna or Balaclava would be accelerated forty-three days by being taken in tow! and, consequently, forty-three days freight out of sixty saved to the country.

How considerable a saving both in time and money would have accrued to the country, had a system so consonant with her advancement in science been systematically adopted in the transport of carts and all munitions of war to the East. The sailing transports were engaged by Government at the rate of 80*s* a ton per month of registered tonnage; or *one* shilling a ton per day, taking the month at thirty days; thus vessels of 600 and 1000 tons registered tonnage would be at a daily cost to Government respectively of 600*s* and 1000*s*.* The average passage of a sailing vessel from England to Balaclava, unaided by steam, is about sixty days, or two months; and consequently the entire cost of a vessel of a 1000 tons register performing such

* Every vessel will convey *one half more* than her registered tonnage, *e.g.* a 1000 ton vessel 1500 tons of cargo of 40 cubic feet to the ton, but the Government pays only for the tonnage registered.

voyage would be 60,000*s* ; but as a steamer of 2500 tons burthen towing this vessel would perform the voyage in 17 days, accelerating the sailing ship's voyage by 43 days, the cost of the sailing vessel to Government, under these altered circumstances, would be 17,000*s* for the voyage, or as many thousand shillings as the vessel was days at sea, thus demonstrating a saving on the part of the sailing vessel of 43,000*s*, to be considered when the cost price to Government of any particular cargo is estimated ; but, on the other hand, a steamer of 2500 tons burthen, capable of steaming at a mean speed of 240 *nautical* miles per day, would have *her* voyage protracted three days whilst towing the sailing vessel 3360 miles *

The daily charge of such steamer to Government being £380. (or 7600*s*), her *three* days further detention at sea would cost 22,800*s*, which subtracted from 43,000*s*, leaves a clear gain on their combined voyages of 21,200*s* (£1060.) in money, and 43 days in time.

In Appendix No. 3, of the Third Report, the price of a common Maltese cart is stated to be £5. 15*s*, one with iron axles £7. 15*s*, harness £2. a set, therefore the entire charge for harness, cart, &c., was under £10. ; we thus perceive the amount of freight saved on the voyage of a single sailing vessel,

* A nautical is 2000 yards, a land mile 1760 ; therefore 13 nautical miles about equal 15 land miles, consequently 240 nautical equal 277 land miles.

towed from England to Balaclava, would have paid for 106 of the best Maltese carts with harness complete.

In a requisition from Commissary-General Filder to Sir Charles Trevelyan, Secretary to the Treasury, dated Balaclava, 28th November, 1854, we find him demanding two hundred and twenty (220) of these carts to be sent from England, made after a pattern which he states Commissary-General Wild will forward from Malta, and which having as he describes no sides to them, "the cost of their conveyance from England by sea will be inconsiderable."

Thus in *November*, 1854, is a truth admitted and a requisition made, to meet such obvious wants as ought to have been anticipated in *February*, ere our army had left our shores; *three thousand* such carts, or others even of a better description, might readily have been constructed in this country, and conveyed to Constantinople or Varna within six weeks from the date of the order.

Three thousand horses to draw them, might have been conveyed in twelve steamers of 2500 tons burthen, at a cost of about £12. each animal, when such steamer was laden with a mixed cargo of men, horses, and munitions of war; and for £21. a head when the authorities so neglected their duty as to dispatch a vessel to sea without placing on board of her any other cargo; £21. a head for 250 animals, is at the daily rate of about 30s for each horse, so for every *shorter* voyage within the Mediterranean,

such as from Spain, Tunis, Alexandria, Trieste, &c. &c., that sum is the highest amount chargeable on the animal conveyed in a vessel of 2500 tons burthen, but of course such charge will be further reduced by any amount of mixed cargo that might be placed on board, either as the attendants on the animals, or by loading the vessel both in the hold and in spare room on the decks, with those articles most economically purchased on the spot, either barley, locust beans, dry sulla, corn, hay, &c. &c., in fact with any cargo of fodder required for the general use of the army.

From Colonel Kinloch's evidence before the Sebastopol Committee, we learn that as early as March, 1854, he offered to procure any amount of mules for Government from Spain; the Duke of Cambridge approved of the plan, and so did Lord Raglan, but the Lords of the Treasury demurred in consequence of the anticipated expense, although the plan was admitted to be good; *three* months later, (or as the Earl of Derby would say, "*again too late*,") the Secretary of the Treasury sent for Colonel Kinloch to accept his offer, and about the middle of June he was permitted to leave for Spain, with orders to purchase 500 mules;—300 for pack-saddles and 200 for harness—the saddles and harness to be bought in the country; no difficulty whatever was experienced in the purchase, the price varied from £15. to £30., and the average cost was £24. 10s per mule. Yet the same Lords of the Treasury, who hesitated for *three* months to authorise so important an outlay,

permitted 200 of these fine animals and their attendants to remain at Alicant, waiting for embarkation, from the beginning of September to the middle of December, quite unmindful of the useless cost which such negligence entailed upon the country, and thus uniting in their own persons two apparent contradictions—unpardonable parsimony and ruinous extravagance.

Of the original number it is stated that 300 were small mountain mules, accustomed to pack-saddles, possessed of great courage and endurance, that 200 were harness mules, $15\frac{1}{2}$ to $16\frac{1}{2}$ hands high, very large, fine, powerful creatures, and that 90 muleteers had been engaged ; these, with four or five hundred more men in addition, and about 1000 tons of fodder, *might* have been conveyed to the seat of war in a few days by two steamers of 2500 tons burthen.

Therefore three thousand mules, carts and harness, of the very best description, might thus have been procured, and conveyed to Varna at about the cost of £50. for each animal, cart and harness complete, consequently for the *insignificant* sum of £150,000. the army might, as far as such mode of transit was concerned, have been made perfectly independent of the country in which they were to operate, for three thousand carts capable of carrying 600 lbs. each, is the number that Sir Charles Trevelyan states the Commissary-General required to enable the army to advance from Varna to the banks of the Danube.

No great dependence, however, can be placed on any such calculations, for I observe that the Commissary-General assumes that the 5000 small ponies or animals he had obtained, and which were to serve as a part of the land transport for the army in addition to the 3000 arabas or country carts, would be found equal to carry 200 lbs. each, besides the weight of their pack saddles; it is admitted that the data for this weight is derived from our experience in the Peninsula, where the finest and most powerful animals in the world are to be found, and which were employed in the land transport corps of the Duke's army, and not such miserable quadrupeds as were purchased in Turkey for prices varying from £4. 10s to £7. The very imagination of which economical purchase seems to have so enchanted the short-sighted Secretary of the Treasury. The army of the East, however, will never forget that unstatesman-like policy, which served so effectually to paralyse their movements, by enforcing an entire dependence on the bipeds, the quadrupeds, and arabas of Turkey.

The question of Naval Transport is one of such vital interest to the nation, as affecting the very existence of the army, and therefore the reputation of the country, that it is impossible to dwell too long or too seriously on so important a subject. The Minister for War can hardly be considered responsible for the efficiency of the army in the field, if he be not made conversant with all the details of a

Department, that has been proved throughout the late war, to have so seriously paralysed all his measures ; there appears no prospect of any harmony of action ; nor success in any future war ; nor even security from a repetition of similar disasters, but by the removal from the head of the Admiralty, of one, who in such position can never be of any service to the State, substituting a really effective Naval Commander-in-Chief, whose retention of office can be made dependent on his proved competency, and whose removal on any just grounds will not affect the construction of the Cabinet.

A Minister for War placed in the arduous position held by the Duke of Newcastle, was virtually bound hand and foot, by being obliged to send a *requisition* in lieu of an *order* to the Admiralty ; for every individual who has had the smallest acquaintance with either profession knows well how difficulties vanish when an official letter takes the form of an *order*, instead of a *requisition*.

Let the reader but reflect upon the extraordinary nature of the replies made by Sir James Graham, in his answers to Mr. Roebuck's questions as Chairman of the Sebastopol Committee, and then ask himself, if in any future war the same amount of practical talent was placed at the head of the naval branch of the army transport, whether it would not paralyse the efforts of the ablest Minister that ever conducted a great war ; read how he enumerates all his appalling difficulties ! see him

dwell upon the vast monthly demand of provisions for the army. Observe how he gives the quantity of biscuit required in lbs. ! and the rum in gallons ! We only marvel that he did not give the salt meat and sugar in ounces ! more especially as he has paraded as one of his great efforts, " the perpetual flow of about 10,000 tons of coal to a distance of 3000 miles." * His *own* Parliamentary abstract proves that those 10,000 tons of fuel were moved by *private* contract, and therefore could not have demanded more time than was required to give a simple direction to the contractors to convey 10,000 tons a month to the East until further orders.

It appears never to have suggested itself to the minds of any member of the Sebastopol Committee, when the Right Hon. Baronet was dilating upon the difficulties of his administration, to turn to Appendix No. 3 of the Third Report, with a view to ascertain the exact amount of provisions required for the use of the army in the field, as shewn in the return demanding such stores, from the 1st November, 1854, for three months ; for a force estimated by Commissary-General Filder at 45,304 men. We observe for simplicity sake that the requisition is made in lbs., and if we divide these by 2240, the number of pounds in a ton, we shall be in a position to appreciate the exact measure of the demand upon the administrative talent of the First Lord ! *One* vessel then of about 1800 or 2000 tons burthen,

* See Fourth Report, No. 21, 116.

dispatched from our shores each month, would convey all the biscuit, salt meat, sugar, coffee, rum and rice necessary to supply 45,304 men for 30 days, as shewn by Commissary-General Filder's demand; and *three* vessels sailing simultaneously would have fulfilled all the conditions of that requisition in respect to the provisions for the men.

The reader will remember that I have computed the cost of the steam transit of a soldier to Balaclava, and have proved it to be at the low rate of a $\frac{1}{4}$ d a mile! I have proved, also, the small amount of cost for the transport of a mixed cargo of men, horses, and stores, and have demonstrated with what economy and rapidity this great nation, by the aid of science, can carry on a war 3000 miles distant, but the force of all these observations will become still more apparent, when the cost of a land transit to the Russian army is computed, and compared with our steam water transit.

Dionysius Lardner in his very able work of *Railway Economy*, published in 1850, states: It is calculated that of the entire inhabited part of the globe, roads do not exist in more than *two-sevenths*. The extensive empire of Russia, with the exception of one or two main communications, such as between St. Petersburg and Moscow, is without them. In general, the only practicable communications through this vast territory are effected in winter on the surface of the frozen snow by sledges; on the return of summer, when the snow has disappeared, the

communications become extremely difficult, slow and expensive !

Towards the end of the last century, when our roads were in a better condition than those of Russia, Dr. Lardner informs us that the conveyance of a ton of goods, drawn by one horse, in a good cart on a good road, cost 40s between Liverpool and Manchester, or 15*d* a ton per mile ; he further adds that the waggon transport formerly practised was limited in speed, which in its most improved state did not exceed twenty-four miles a day.

But neither can such speed be attained, nor any such weight drawn, by the inferior "arabas" in Turkey, nor by the best carts on bad roads of any country ; a ton weight consists of 2240 lbs. and we observe that the Maltese carts and arabas were never computed to carry more than 600 or 700 lbs. each. Commissary-General Filder informs us, that even the French four-horse waggons were only capable of conveying 2000 lbs.

When the winter set in, and the roads between Balaclava and Sebastopol from the great traffic over them began to be broken up, the carts rapidly fell to pieces, and our Commissariat had to resort to horse and mule conveyance ; consequently, the land transit was reduced two-thirds, for a mule or horse will carry but 200 lbs. ; even this means of transit was subsequently reduced to one-sixth, for as the winter advanced, and the roads became worse and worse, the animals were unequal to perform the

journey from Balaclava to Sebastopol oftener than three times a week.

I will, however, base all my calculations of the relative expense of land and water transit, on the favourable data taken from Dr. Lardner's work, leaving it to each individual to make such further allowance as he pleases for the altered circumstances.

Fifteen pence a ton per mile amounts in round numbers to £6. for every 100 miles ; consequently *one* ton will cost the Russian Government £30. to convey it 500 miles ; and it follows that 500 tons of munitions of war moved 500 miles will be at a charge of £15,000 to the Russian Government, and supposing even 24 miles a day to be accomplished, which is granting nearly an impossibility, 21 days will be required for the transit.

Thus we perceive that the expense of transporting 500 tons 500 miles in Russia by land, will about equal the cost to our Government of *three* steamers of 2500 tons burthen conveying their enormous cargoes, in the highest state and condition, and at the rate of 240 *nautical* miles a day.

The "Morning Herald" of the 24th of January, 1857, contains an important leading article on the subject of a Russian invasion of India, from which I extract the following :—

"Now, if it be true, as we are told on very good authority, that when the Russians ordered troops to march from Poland, they calculated that only one

man out of three would arrive in an efficient state before Sebastopol, we may imagine what their sacrifices would be, in bringing up a large army to the frontier of India."

Let the reader turn to the military map of Russia that accompanies this pamphlet, let him place one leg of a pair of compasses in the centre of the position occupied by the 2nd corps, and produce the other leg to Perekop on the isthmus leading to the Crimea, and he will observe that distance on the scale of the chart gives about 500 miles; let him again extend the compasses from Perekop to Sebastopol, apply that to the scale, and he will have 140 miles, these two distances added together equal 640 miles, to which must be added one-eighth more for the windings of the road; one-eighth of 640 is 80 miles; therefore the total distance for the 2nd corps to march, supposing that to be the corps alluded to by the "Morning Herald," would be 720 miles, and every 500 tons of munitions of war, moved by that army, would be at a cost of £21,600; if the corps referred to is the 1st corps, the length of the march would be about 945 miles, and the expense of the conveyance of every 500 tons £28,350.

Well may the "Morning Herald" laugh at a Russian invasion of India! No doubt the anticipated losses of the Russian corps marching from Poland was made from data founded on experience, for every body who has perused Captain

Adolphus Slade's admirable work on the Russian campaigns in Turkey in 1828-29 will be perfectly prepared to believe in the correctness of any such computations.

Possessing every advantage over Russia in carrying on a great war, at a distance from the centre of her own soil, we must clearly perceive how distinctly the line of our operations during the late contest was defined.

The important nature of that great military and naval position, Sebastopol, with its capacious harbour containing a large fleet both of men of war and transports; its magnificent docks, fine city, and abundance of munitions of war, and the value of the position in every military point of view, marked it as that stronghold most vital to Russia to defend by every effort and at any cost, and consequently to be at once selected as the immediate object of our attack.

The selection of such object of attack must inevitably draw to the south all the vast armies of Russia, thus denuding the northern ports of the men necessary for their defence, and subjecting the soldiers to those heavy losses consequent on such lengthened marches. Constantinople, on the other hand, offered to us a most favourable position *as the real basis of all our operations*, it was there that we could collect in perfect security all the necessary stores for the most extensive undertakings, and the short distance that intervened between it and the Crimea, especially as the communication could be

kept open during any season of the year by our vast steam fleet, gave us in effect a position as valuable as one on the enemy's territory, but free from all its dangers.

It was essential to the success of so great an operation that all simultaneous efforts directed against any other portion of the enemy's territory, should have been made subservient to this one important object, as it was impossible for this nation, *drifting* into war with little more than a peace establishment, to press to a successful issue more than one such undertaking, for we had neither men nor means at our disposal for any serious attack in the Baltic; we stood in want of every kind of materiel that could secure success to our operations,—men, mortars, shells, gun and mortar vessels, and even powder! it being well known that so lately as August 1855, the quantity of gunpowder manufactured in all England, by both public and private establishments, was but 108 tons a week! when, by a reference to the following plan for the bombardment of Cronstadt, it will be observed that 241 tons a day would be required! and that quantity apart from all consideration of the amount necessary for the destruction of such portion of the enemy's fleet as might offer any serious opposition to the deployment of our bombarding force.

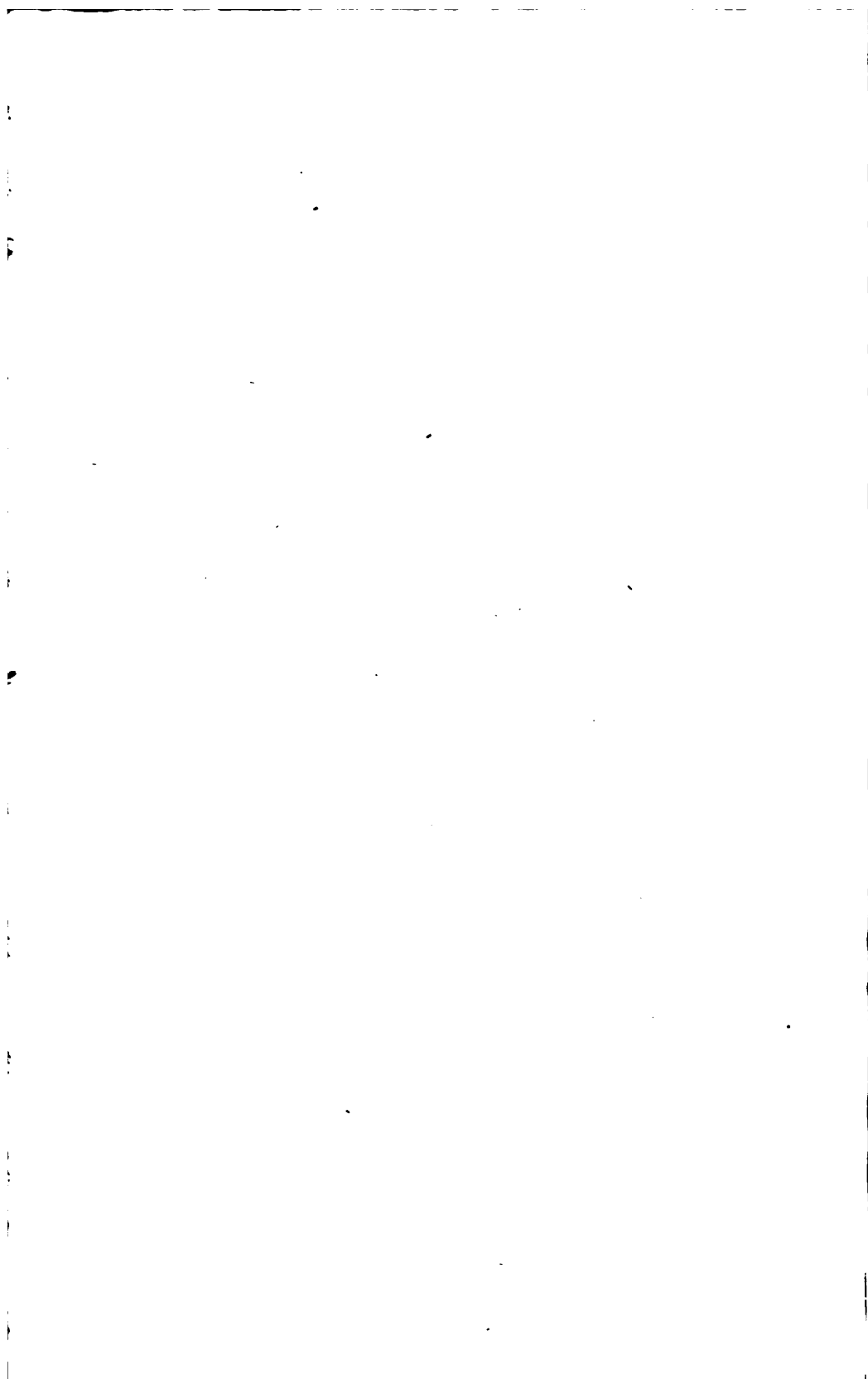
The fleet dispatched to the Baltic in the spring of 1854 ought to have been regarded as a *mere* blockading force, not to engage in any great opera-

tion, unless the enemy appeared at sea ; but nevertheless, by threatening every portion of the Gulf of Finland, to paralyse the movements of the troops, and detain them in a state of inactivity in the northern portion of the empire, until the winter had set in, and the Allied army had secured a firm footing in the Crimea.

Immediately on the dispatch of Admiral Sir Charles Napier's fleet to the Baltic, the work of preparation for a campaign in that sea for the ensuing year ought to have commenced. The building establishments of this great empire, both public and private, ought to have been simultaneously called into the utmost activity, and the summer months spent in the preparations necessary for carrying into execution an already fully matured plan of campaign.

By commencing the campaign energetically in the Baltic in the spring of 1855, the tables would once more have been turned against Russia, her forces which had been withdrawn to the south, could not have returned in time to take part in any great battles, Russia thus deprived in the north both of her disciplined troops and seamen, would have been unable to defend Cronstadt and Helsingfors against any serious attacks ; whilst the Allies, aided or unaided by Sweden, retaining possession of *one* or *both* of these strongholds, would have secured a firm basis for future operations, and thus the ensuing Campaign of 1856 might have opened with the attack of St. Petersburg.

COPIES OF
PLANS FOR AN ATTACK
UPON
CRONSTADT, SWEABORG,
ETC.
WITH CHARTS AND OTHER EXPLANATORY DATA ;
COMPRISING
A GENERAL PLAN
FOR A
CAMPAIGN IN THE BALTIC
FOR THE YEAR 1856.



United Service Club, Pall Mall,
* August 15th, 1855.

SIR,

As the campaign of the ensuing year will necessarily occupy the attention of the Government, I am desirous to submit for the consideration of the Lords Commissioners of the Admiralty—a plan of attack, which—after a long and deliberate attention to the subject—I firmly believe adequate to accomplish the fall of Cronstadt, and the destruction of the Russian fleet. The accompanying charts and notes will serve to explain the views I entertain.

When, in 1854, we viewed with just pride the powerful fleet assembled at Spithead, under command of Admiral Sir Charles Napier, I felt, with many, that the anticipations which then possessed the public mind, would never be realized; and it naturally became matter of deep and general regret, that vessels of such vast magnitude, however nationally important and imposing, were destined, by reason of their very magnitude and consequent draught of water, to perform a very incommensurate part. Notwithstanding its unquestionable efficiency for services of a different character, such a fleet could operate as *secondary only*, in the event of the Russian Government not permitting their fleet to proceed to sea; and that it was the policy of the Russian Go-

* Although this letter is dated the 15th of August, it was not sent in before two o'clock, P.M. of the 18th, in consequence of a delay in the completion of the chart to accompany it.

that the small amount of damage suffered by *line-of-battle-ships*, engaged about 2250 yards from the forts, justifies a belief that mortar vessels at the same distance from Cronstadt would escape with comparative impunity—moreover, it must not be omitted, that the range of these mortars would be effective as a cross-fire, over every part of the town, and all its adjuncts.

The extreme range of a 13-inch sea-service mortar, varying from 4200 yards to 4500 yards, the enormous weight of the projectile, 200 lbs. ; the large quantity of powder in the shell, and the fact, that the velocity lost in ascent, is recovered in descending through the arc of the parabola ; all combine to make the comparative *dis-use* of the projectile a matter of regret to officers who have made the laws of projectiles an especial study. These mortars will be equally powerful for the destruction of the ships, necessarily densely crowded at Cronstadt ; and the shells may partially be filled with Valenciennes composition, to render them more effectively destructive.

On the north side of Cronstadt, mortar vessels, *exclusively*, will prove most effective ; but on the south side and east, where shipping can be attacked, gunboats firing red hot shot, shell, and carcasses, combined with mortar fire, would be most destructive.

An inspection of the chart will shew, that, of the present fleet, but few could participate in the plan of attack proposed. All, however, would serve to repel any attempt of the Russians to come out by the Great Road, and furnish *reliefs* to the crews of the

mortar vessels and gun-boats,—essentially necessary during a fire maintained without intermission, day and night, until crowned with success.

It is also proposed, as inspection of the chart will shew, to break through the barrier of piles and stones obstructing the passage between Cronstadt and Lisi-Nos, and thus to open a passage for larger vessels than can pass to the south of Cronstadt, over the Oranienbaum Spit.* I cannot entertain a doubt that engineers can be found ready to undertake the opening of such passages, their operations being effectually covered by the guns of the fleet engaged on the north-east side.

I consider that the entire sea—east, north, and south—ought to be occupied by our gun-boats, in *great* force, and by our mortar vessels; and also by such of the larger vessels as might be brought into action, by opening channels through the piles to the northward.

The greatest ultimate economy—as regards both life and money—will result from the employment of a force so large and overpowering, as shall leave the enemy no single chance. Recent campaigns have demonstrated that we already have a sufficient force

* Since the above plans were submitted the Russians are supposed to have constructed a line of piles or stones from an earth battery of 17 guns on the main land in a line towards Fort Risbank, but in so wide a channel there could be no possible difficulty in removing any such obstacle. The breadth at the shortest distance between the south shore and Fort Risbank is 5400 yards; it is clear, therefore, that the vessels would have a mid-channel 2700 yards distant from either battery, a positive point of impunity, especially when any such operation would be supported by a heavy bombardment of Risbank and the Earth Battery.

of line-of-battle ships; the resources of our dock-yards will therefore be now available for the construction of the proposed fleet of gun-boats and mortar vessels; and it is essential to state here, that these vessels should draw far less water than those heretofore constructed, as the greater number will be required to pass over the Oranienbaum, to assume the position most favourable for the attack.

In the chart, our fleet is shewn all assembled off Cronstadt, merely to display the force now in the Baltic; but, whilst the proposed operation is in process of execution, a force equal to the object, should be detached to make good a blockade against any portion of the Russian fleet at Helsingfors or elsewhere.

I desire also to state my opinion that at the commencement of the ensuing campaign, it would be injudicious to attack Sweaborg, Helsingfors, or Revel, as they offer no similar advantages for attack; and also, because however much we might accomplish there, the moral effect of success would be infinitely less.

Having thus sketched a general plan, and having reasoned on all the collateral matter, I have only to add that, if required, I should be prepared to remove such difficulties in carrying out the detail, as full consideration of the subject may suggest.

I have the honour to be, Sir,

Your obedient servant,

J. C. ROSEASON,

To the Secretary of the Admiralty.

Commander.

P.S.— When I had the pleasure to see Rear-

Admiral Henry Eden at the Admiralty, on the 10th of August instant, I stated that I should shortly have the honour to submit to the Admiralty a plan for the attack of Cronstadt, and for the destruction of the Russian fleet. The matter of this letter was, at that date, all committed to paper, and I waited solely for the completion of the chart.

Our success at Sweaborg does not affect the reasoning of this letter, applicable only to the ensuing campaign. Every thing has been destroyed at Sweaborg, which has come under fire of our mortars; and this destruction has been effected without loss to ourselves. But as none of the enemy's men-of-war have been destroyed by our shells, it becomes impossible to reduce our Baltic fleet.* Enough, however, has been accomplished by vertical fire to justify the expenditure necessary for this plan of campaign for the ensuing year.

SIR,

Admiralty, 18th August, 1855.

I HAVE received and laid before my Lords' Commissioners of the Admiralty your letter of the 15th instant, proposing a plan for the capture of Cronstadt and the destruction of the Russian fleet, and I am commanded by their Lordships to thank you for your communication.

I am, Sir, your most obedient servant,

(Signed)

THOS. PHINN.

Commander J. C. Hoseason, R.N.,
United Service Club.

* One vessel was afterwards stated to have been destroyed, or much damaged.

United Service Club, Pall Mall,
Sept. 22nd, 1855.

SIR,

I HAVE the honour to forward to you the accompanying letters — chart, scales, drawings, &c. &c., having reference to my plan for an attack upon Cronstadt and destruction of the Russian fleet.

No. 1.—Official letter to the Secretary of the Admiralty, dated Sept. 22nd.

„ 2.—Chart, with the plan of the order of battle.

„ 3.—One scale of the chart, and four of the several positions in the order of attack.

„ 4.—Estimate of the force of gun-boats and mortar vessels required to be built, along with an estimate of the daily expenditure of powder, shot and shell, &c. for the bombardment.

„ 5.—Mr. W. H. Cox's letter relative to the construction of the boats.

„ 6.—Drawings of the same, the largest class to carry engines.*

„ 7.—Messrs. Rennie and Sons' letter.

„ 8.—Their plans for engines, &c. &c.

„ 9.—List of weights to be carried by the boats.

I have now to add, that I have not the least doubt the vessels I propose will pass over the Oranienbaum Spit with ease, whilst drawing 3 feet of water, having ascertained, only *last* Saturday, the important

* Plans of boats without engines were also sent into the Admiralty, but to save expense they are not lithographed to accompany this pamphlet.

fact that Messrs. Rennie and Sons constructed *two* steamers for the late Emperor Nicholas: the first was lost on the voyage to St. Petersburg; the second, constructed of the same draft, 4 ft. 6 inches, was sent out in charge of Mr. George Rennie, jun., who, whilst at St. Petersburg, received the Emperor's commands to attend him on his visit to the several forts of Cronstadt and the basin on the Oranienbaum. Mr. Rennie crossed this spit three or four times in every direction, and the vessel only touched *once* at a draught of 4 feet 6 inches; however, I would still advise, for many reasons, vessels to be constructed of about 3 feet draught.

I have also enclosed a fair copy of my first-official letter to the Admiralty on the subject, dated August 15th, as the two letters, as well as the Charts, will have to be considered together as one plan.

I have the honour to be,

Sir,

Your obedient servant,

J. C. ROSEASON,
Commander.

To the Secretary of the Admiralty.

United Service Club,
Sept. 22nd, 1855.

SIR,

WITH reference to my plan of attack upon Cronstadt and the Russian fleet, I beg leave to place in your hands, for the inspection of the Lords Commissioners of the Admiralty, the accompanying

tables, my object being a further elucidation of the Chart.

I beg also to submit drawings explanatory of the construction of the proposed gun-boats and mortar-vessels, of which the draught must be limited to secure a safe transit across the Oranienbaum Spit.

In my letter, August the 15th, I stated that the construction of such vessels presented no difficulty ; I now desire to call their Lordships' attention to the fact that an extensive trade with France, Holland, Dantzic, the several ports in the British Channel, and even in the North Sea, as far as Scotland, has been carried on for a long period, in all seasons of the year by vessels here specified, where tests must be encountered far more trying and severe than any to which they are likely to be subjected during the summer months, whilst engaged in the service proposed.

It would prove a saving of time, were I permitted to explain, in a personal interview, my plan of attack ; because, however defined the drawings, and clear the details, objections may be raised and doubts suggested—anticipation of which would, I conceive, involve a waste of time, and dilute the general reasoning by excess of minuteness.

Our force in the Baltic, under existing circumstances absolutely inoperative, in co-operation with the Fleet proposed will soon display its power ; and the direct result must be a prevailing conviction that the ships of the largest class, acting in combination

with vessels of dimensions comparatively insignificant, are essential to the speedy and complete accomplishment of the one great national object—the absolute destruction of the maritime resources of the enemy.

The *personnel* required to give efficiency to the plan proposed is easily found in the well organized crews of our line-of-battle ships, trained as they now are by the experience of two campaigns, and the number of gun-boats and mortar-vessels proposed cannot be considered an estimate in excess of the requirement, whilst the small dimensions of the vessels, and consequently of the engines required, will facilitate construction, and limit outlay to an amount insignificant, when viewed in connection with the object to be attained.

Her Majesty's ship "Marlborough," ready for sea, will stand at a cost of £1000. for each of 131 guns; or, in round numbers—

Hull and fitments	.	.	.	131,000
800 horse engines	.	.	.	48,000
Gross total	.	.	.	<u>£179,000</u>

The entire Fleet proposed, as necessary to be constructed, cannot exceed the cost of six such ships.

Their Lordships will observe from the drawings that paddle-wheel propulsion is employed; the screw, owing to its limited area, being nearly inoperative in the draught required; and its efficiency materially diminished by the full form of stern essentially ne-

cessary in vessels with a flat floor, and of large capacity.

That the arsenals and fleet of an enemy may be destroyed, with an amount of security to the assailants nearly approaching a positive impunity, may with confidence be assumed ; and, in support of such assumption, the innocuous effects of artillery practice on small objects--afloat at great distances--may be illustrated by an occurrence in which originated an interesting experiment on board her Majesty's ship "Excellent," by order of the Admiralty, in 1846.

In 1846 I had the honour of an interview with the late Admiral of the Fleet, the Right Honorable Sir George Cockburn, during which a discussion arose on the subject of gunnery. Declaring my belief that the accuracy of the practice of horizontal shell-firing had been greatly overrated ; that I was not aware of any practical results beyond 1200 yards ; and that I doubted whether, even with all the advantages possessed by the "Excellent," in Portsmouth Harbour, a line-of-battle ship would be hit in a whole day's firing at the distance of 3000 yards ; Sir George, struck by the observation, declared his intention to order the experiment without delay.

In June, 1846, on my appointment to the command of her Majesty's steamer "Inflexible," inquiring on board of the "Excellent" when the gunner to be appointed to the "Inflexible" was to be discharged, I was requested by Captain Hewlett, then commander

of the ship, to witness the result of the firing at a target of canvass, in area equal to the full side of a line-of-battle ship, at a distance about 3000 yards. During the practice of the whole forenoon this target was not struck *once*; whether struck after my departure I know not, but the records of the practice will, on reference, supply the information, if desired.

Captain Hewlett was not at the time aware that the experiment originated as above described. However, no matter how or whence arising, it is worthy of grave attention, as establishing the important fact, that an object of very large dimensions may be placed well within the range of ships' guns, and yet the chance of a single hit be not within the number of shot and shell fired during a space of many hours.

A careful measurement of the distances of our steamers from the batteries at Odessa, Sebastopol, Hango and Sweaborg; and a perusal of all the public despatches, as well as of the private accounts relating to the bombardment of Sweaborg, will justify this inference, and create a confident expectation of success. The accompanying scale will shew the importance of limiting the draught with a view to the deployment of the necessary number of gun-boats and mortar-vessels, over the Oranienbaum Spit; and also, to facilitate a nearer approach to Cronstadt on the north-west angle. This position will enable the gun-boats and mortar-vessels, by their cross fire, to take the batteries on the east face of Cronstadt in reverse.

An inspection of the plan of attack will shew,

that, however easy the operation of blowing up the barrier of piles and stones may be considered, it is not deemed prudent to entrust the chance of success to an attack made from a *single* flank ; and therefore the bombardment of Cronstadt, and the attack on the Russian force defending the barrier in the sea, north-east of Cronstadt, must be *simultaneously* commenced, by forces approaching from two different quarters.

The completion of the entire force, in time to admit of perfect organization, and of exercise in the requisite evolutions, by the Spring of the ensuing year, is obviously desirable in the highest degree ; it will, however, be deemed prudent, that, in the event of their Lordships' approval of the construction proposed, ten of each kind should, in the first instance, be built. Their Lordships would thus be enabled to judge how far the requisite conditions were fulfilled, and to estimate the value of such improvements as inspection may suggest.

An order to work night and day, will secure the completion of these trial vessels, in about six weeks from the date of order ; and this mode of procedure will facilitate the building of the fleet ; because, inspection must materially aid the Dock-yard Officers, and the Contractors, in carrying out the detail of drawings and specifications.

I have the honour to be, Sir,

Your very obedient servant,

J. C. HOSEASON,

Commander.

To the Secretary of the Admiralty.

*List of Weights to be carried by the Boats.***MORTAR VESSELS.**

	ton.
Mortar	5
Bed	5
288 Shells	27
Powder	3
Coals	5
Masts, Anchors, &c.	4
Twenty Men, Arms and Accoutrements	2
Provisions and Clothes	2
	<hr/>
	53
	<hr/>
Engines and Water in Boilers	24
	<hr/>
Total	77
	<hr/>

GUN BOATS.

	ton.	cwt.
Gun	4	15
Bed	4	—
Shot (800 rounds)	24	—
Powder	4	—
Coals	10	—
Masts, Anchors, Cables, &c.	4	—
20 Men with Arms and Accoutrements	2	—
Provisions and Clothes	2	—
	<hr/>	<hr/>
	54	15
Engines with Water in Boilers	24	—
	<hr/>	<hr/>
Total	78	15
	<hr/>	<hr/>

P.S. The Boats have a displacement of 3 feet, with 80 tons on board. It was intended that the Boats should have had 20 feet beam, but the drawings being completed no change was made; being only intended to illustrate a principle.

Admiralty, 27th September, 1855.

SIR,

Having laid before my Lords' Commissioners of the Admiralty your letter of the 22nd instant, with its inclosures, relative to a plan for attacking Cronstadt; I am commanded by their Lordships to express to you the sense which they entertain of the care and attention which you have bestowed on the plan in question, and of the skill and devotion to the service which it exhibits.

I am, Sir,

Your most obedient Servant,

(Signed)

THOS. PHINN.

Commander Hoseason, R.N.

United Service Club.

United Service Club, Pall Mall,
3rd December, 1855.

SIR,

I HAVE the honour to forward for the consideration of the Lords Commissioners of the Admiralty, the accompanying documents, named in the margin,* in continuation of the plan I had the honour to submit for a campaign in the Baltic for the ensuing year.

The plan now referred to for the consideration of their Lordships, is for a combined naval and military

* 1. Chart of Plan of Attack.—2. Scale of Chart.—3. Details of Order of Battle.

attack upon Helsingfors and Sweaborg, with the object of obtaining possession of both those places, together with their garrisons, and such portion of the enemy's fleet as may winter in the harbour of Helsingfors.

This operation pre-supposes that an attack upon Cronstadt has been successful, and that the enemy's town and fleet have been destroyed; for it is not deemed prudent to embark in an enterprise of such magnitude with a vast enemy's fleet intact, and only 145 miles distant.

On the fall of Cronstadt and the destruction of the Russian fleet, the Allied fleet will sail for such point in the Gulf of Finland, west of Helsingfors, as shall have been previously determined upon, and there disembark the army under cover of the guns of the fleet; the army will then march upon Helsingfors and entrench itself as shewn in the chart; when as speedily as possible the combined operation will be carried into effect.

As the garrison of Helsingfors is estimated at 40,000 men, exclusive of the crews of the enemy's vessels that may have wintered in the port, an Allied army of 40,000 or 50,000 men is deemed necessary to cut off their retreat.

An inspection of the chart will shew, that it is recommended to occupy as many of the islands as possible with mortar batteries, as from their fixed position and known distance from the enemy's works,

their fire can be continued with great precision, and without intermission during the night. Only two islands, viz. Brando and Blabers Landet, will be occupied by the army; the others, it is intended to include in the naval operations.

The naval estimates for the year 1855-56 give our force at

54,000 Seamen
16,000 Marines
<hr/>
70,000 Total.
<hr/>

It is conceived, now, that all great naval operations have terminated in the Black Sea; 45,000 effective seamen and marines will be available for this service, to which if 15,000 French be added, there will be a combined naval force of 60,000 men.

I think it may safely be stated, that no portion of the Gulf of Finland offers similar advantages for the deployment of a vast naval force, nor shews points of attack where seamen and marines can operate on shore, under such favourable circumstances; nor where so small an army as 50,000 men, acting in the Russian territory, will be more free from danger, and their operations be more likely to produce important consequences.

The very flattering manner in which you were pleased to address me, by command of their Lordships, in your letter of the 27th of September, has

encouraged me to submit this further extension of my plan of campaign.

I have the honour to be, Sir,

Your obedient, humble Servant,

J. C. HOSEASON,

Commander.

To the Secretary of the Admiralty.

Admiralty, 5th Dec. 1855.

SIR,

I HAVE received and laid before my Lords Commissioners of the Admiralty your letter of the 3rd inst., transmitting charts, in continuation of the plan you propose for a campaign in the Baltic.

I am, Sir,

Your most obedient, humble Servant,

(Signed)

THOS. PHINN.

Commander John C. Hoseason, R.N.

United Service Club.

United Service Club, Pall Mall,

May 12th, 1856.

SIR,

WITH reference to your letters of the 18th of August, 27th of September, and the 5th of December, 1855, acknowledging the receipt of my several Charts, Documents, Plans, and Estimates for a campaign in the Baltic, and considering the highly complimentary manner you expressed yourself by command of their Lordships regarding those documents, in the letter of the 27th of September, I have to

request you will be pleased to solicit on my behalf that advancement in the service which will alone enable me to establish in the eyes of my profession, that their Lordships have in act, as well as in word, appreciated that assiduous and laborious study of the higher branches of my profession, which their Lordships so forcibly described by the word "devotion."

Alive to the interests of the service, I have abstained, for many reasons, from making this request at an earlier period, but I trust, now that peace has been proclaimed, that their Lordships will not deem this application ill-timed.

I have the honour to be,

Your obedient Servant,

J. C. HOSEASON,
Commander.

To the Secretary of the Admiralty.

Admiralty, 14th May, 1856.

SIR,

I have received and laid before my Lords Commissioners of the Admiralty your letter of the 12th instant, stating your services, and requesting promotion.

I am, Sir,

Your very humble Servant,

(Signed) THOMAS PHINN.

Commander J. C. Hoseason, R.N.

&c. &c.

United Service Club, Pall Mall,
9th June, 1856.

SIR,

I trust that their Lordships will not deem me importunate, if I again bring under their consideration my claim for promotion for the Charts, Plans, and Estimates, submitted by me in August, September, and December last, for a campaign in the Baltic.

The great magnitude of the subject therein treated upon, and the minuteness of the details, must have satisfied their Lordships of the extent of my professional knowledge, and how assiduously, I must have followed up every branch of the profession, ere I could have exhibited to them such evident proofs of my labours.

That such was the impression at the time entertained by the Board of Admiralty, on a view of the elaborate nature of the details, is demonstrated by the highly complimentary wording of the Secretary's letter of the 27th of September last, for the words selected to convey their Lordships' opinion, were marked and expressive, and conveyed an opinion, not merely upon the matter of the plans in question, but even upon the honourable motives from which they emanated.

I cannot therefore refrain from again expressing the anxiety I naturally feel, to receive from their Lordships some substantial mark of their recognition of my exertions, not only as a satisfaction to

myself, but as a proof to the profession that those exertions have been appreciated.

Their Lordships will have observed that I am indebted to no fortunate accident for the nature of the services performed, my opportunities for obtaining information being very limited, and consequently the difficulties almost insurmountable, but I was mainly cheered on to the performance of the task, by the knowledge that such plans when executed, would be a lasting testimony to my country of the labour I had bestowed, in mastering the minutest details, of the most scientific and difficult profession in the world.

I have the honour to be,

Your obedient humble servant,

J. C. HOSEASON,
Commander.

To the Secretary of the Admiralty.

Admiralty, 11th June, 1856.

SIR,

I HAVE received and laid before my Lords' Commissioners of the Admiralty your letter of the 9th instant, stating your claims to promotion for *Surveying service*.

I am, Sir,

Your very humble servant,

(Signed)

THOS. PHINN.

Commander John C. Hoseason, R.N., &c.

No. 4, Esplanade, Lowestoft,
20th June, 1856.

DEAR SIR,

THE enclosed reply to my second official application to the Board of Admiralty for promotion, having only this morning been forwarded to me here, I lose no time in begging to draw your attention to the evident mistake that has occurred regarding the nature of that application.

After our lengthened verbal and written communications, connected with the important subjects I had the honour to submit to the Admiralty, relative to the late war, I feel a very natural surprise, which I have no doubt you yourself will also entertain, that my services should be thus wholly ignored by the Secretary of the Admiralty.

The very courteous attention I have ever received at your hands, induces me to rest assured, that you will do me the favour to bring this communication immediately to the attention of their Lordships.

I have the honour to be

Your obedient servant,

J. C. ROSEASON.

Rear-Admiral Henry Eden,
Admiralty.

Admiralty, 21st June, 1856.

THE Secretary of the Admiralty presents his compliments to Commander Hoseason, and begs to transmit an acknowledgment of his letter of the 9th inst., in the usual official form, and which the Secretary of the Admiralty requests Commander Hoseason will substitute for that addressed to him inadvertently on the 11th instant.

Commander Hoseason, R.N.

Admiralty, 21st June, 1856.

SIR,

I HAVE received and laid before my Lords Commissioners of the Admiralty, your letter of the 9th instant, requesting promotion.

I am, Sir,

Your very humble Servant,

(Signed)

THOS. PHINN.

Commander J. C. Hoseason, R.N.

United Service Club.

Highbeach, Essex,
15th July, 1856.

SIR,

I had the honour to receive your letter at Lowestoft, dated the 21st of June, in which you beg that I will substitute a second official acknowledgment of my letter of the 9th ultimo, for the one you addressed to me "inadvertently," on the 11th of June.

I cannot do otherwise than feel, Sir, that any officer has just cause of complaint who finds himself thus slightly treated, when conscious that he has rendered to his country an important service during a very critical period of the late war, and is also sensible, that such terms of peace as have been obtained, would never have been conceded by the enemy, had not that enemy been fully aware that fresh energy had been infused into the Councils of the nation, and that the gigantic resources of Great Britain were not likely, in the forthcoming campaign in the Baltic, to be frittered away, without an object and without an end.

It was not possible for me to be ignorant of the value of the plans I had submitted to the Board of Admiralty, after having had the advantage of perusing Rear-Admiral Sir Maurice Berkeley's Speech in Parliament of the 25th July, 1854, in reply to Lord Dudley Stewart's assertion, that gun-boats and mortar-vessels could be constructed to draw only three feet water — when ridicule was

heaped upon the Noble Lord for entertaining so erroneous an idea—when the *private* letters of Vice-Admiral Sir Charles Napier, and Rear-Admiral Chads were read by Sir Maurice to prove, and for the enemy to learn, the impossibility of assailing Cronstadt with any chance of success—and when Sir Baldwin Walker's name was mentioned in the course of the debate, leading the public and myself to believe, that he also deemed such an attack to be impracticable.

But further and still more important testimony to the value of such plans was afforded me, at a *far later period*, when having sent in that for an attack on Cronstadt, in duplicate—one copy and its enclosures to you Sir, as the Secretary of the Admiralty, and the other to Rear-Admiral Henry Eden, on the 18th of August last, at 2 o'clock, p. m.—at 3 o'clock that officer was with me at the United Service Club, conversing on the plans I had submitted, and I then elicited the following, to me, important facts:—that the Government had, at that period, no intention to attack Cronstadt and destroy the Russian Fleet—that no preparation was being made for any such campaign—that the Board of Admiralty conceived it to be impossible to construct gun-boats and mortar-vessels to draw but three feet water—that such fleet of boats could not pass over the Oranienbaum Spit, without being completely destroyed by the cross fire of the enemy—that the barrier constructed between Lisi Nos and

Cronstadt could *not* be forced, in the face of the enemy—in fact, that an attack on Cronstadt was deemed to be impracticable.

At this date also no preparations had been commenced for so important a campaign. Again, the very prompt official acknowledgment of my letter and of its accompanying charts, and details for the attack, were evidence of the feeling to which such documents had given rise; for although the Board of Admiralty did not return from Chatham before 4 o'clock, p. m. on the 18th of August, yet I had the honour to receive an official letter of thanks about 6 o'clock of the same afternoon.

All these circumstances combined, fully prepared me for the very flattering eulogium contained in your letter of the 27th of September last, written by command of their Lordships, when acknowledging my subsequent letter of the 22nd of September and its enclosures. You therefore cannot possibly conceive, Sir, that with a full sense of the truthfulness of the above statements, I can in justice to myself rest satisfied with such bare acknowledgment of my application for promotion, as is contained in your amended letter of the 21st of June.

I have the honour to be,

Sir,

Your very obedient servant,

JOHN COCHRANE ROSEASON,

Commander.

The Secretary of the Admiralty.

Admiralty, 18th July, 1856.

SIR,

I have received your further letter of the 15th instant, and I have laid the same before my Lords' Commissioners of the Admiralty.

I am, Sir,

Your very humble servant,

THOS. PHINN.

Commander J. C. Hoseason, R.N.

Highbeach, Essex, 22nd July, 1856.

SIR,

In my letter of the 15th July, I had the honor to state the particulars of the service performed by me, in bringing under the consideration of Her Majesty's Ministers, a general plan for a campaign in the Baltic, and of which the principles were, without question, adopted by the English and French Governments.

I now wish to bring under their Lordships' notice, other, and acknowledged, services performed by me at a far earlier date, and of which the records are at the Admiralty.

In my previous memorials I have stated, that I entered the service in the year 1823 ; and had twenty-three years sea-time, obtained on foreign service, in every quarter of the globe ; and that not only had I received the usual testimonials from every Captain I had had the honor to serve under—but also, that I had, after most laborious study of my profession,

been enabled to submit a series of important propositions to the Board of Admiralty, from the year 1842 to 1846, for which I received the most unqualified praise, and the records of which, as I shall presently show, I know to be at the Admiralty.

The estimation in which these services were held will be gathered from the manner in which the Special Board Promotion, I obtained, was granted to me.

When, on urging my claim for promotion before the then First Lord of the Admiralty, the Earl of Haddington, that noble Lord thus addressed me:—
 “ I will never make you, for you have done an important service to your country, and you shall have
 “ a Special Board Promotion. I have voted three
 “ times for this in my seat at the Board ; you have
 “ given a *quid pro quo* to your country, and I am
 “ prepared to defend such promotion in my seat in
 “ the House of Peers—the promotions permitted for
 “ me to make, being only one in three vacancies,
 “ were I to give you one of these, I should deprive
 “ the service of a Commission ; and it rarely happens
 “ that I am placed in a position that will enable me
 “ to justify an officer’s special promotion before Parliament.” In thanking his Lordship for this highly complimentary speech, I begged him to reflect, that it was harder for me to lose the fruits of my industry, than for his Lordship to lose a fraction of his patronage—to which his Lordship rejoined, that he did not intend to detract from my merit, as he had proved from the admissions he had made, but

added, "No other than an especial promotion shall you have."

About six months afterwards, observing that a number of officers were advanced above me, I wrote to Lord Haddington again, to urge my claim, when his Lordship sent for Mr. Henry Wolley—now a Chief Clerk of the Admiralty—and desired him to take my letter to Sir George Cockburn, saying, that I had been most unfairly dealt with, that my services were important, and that I ought to have been made "a year and a half ago;" adding, "*I will never make him*; and tell Sir George, from me, "that a Special Board Promotion he shall have—" or none at all." I received my Special Board Promotion three days afterwards.

I mention these facts, not only that my statements may be confuted, if incorrect, but also with a view to prove to your Lordships the difficulties I had to contend against; for my intended promotion was withheld, although, at the same time, readily acknowledged to be justly and fully merited—because the Earl of Haddington conceived that that promotion should be made in one manner, and Sir George Cockburn conceived that it should be made in another—but neither of them attempted to detract from the value of the service performed; and I could not entertain other than the opinion so forced upon me, that the best interests of the country must be sacrificed, when two modes of promotion were thus suffered to come into collision.

On the Earl of Ellenborough succeeding as First Lord of the Admiralty, he appointed me to the command of Her Majesty's steamer, *Inflexible*, to mark his recognition of the value of my services; and thus, without any adventitious aid, but only on the ground of services performed, I obtained my rank and a command.

In July, 1846, I had the honor to wait on Admiral Sir Charles Adam, then First Naval Lord of the Admiralty, and from that distinguished officer I learnt, that the highest records of my services had been left by his predecessor the Rt. Hon. Sir George Cockburn, and Sir Charles Adam enjoined me to continue to act towards the then Board, in the same manner as I had done towards the previous one, and he assured me, that in such case, my services would receive the most favourable consideration.* I was then commanded to correspond directly with the Board of Admiralty, on subjects connected with the experiments I was ordered to carry out, and in any manner, that could tend to further the improvement of so important a branch of our service, as the Steam Navy. Thus, although only holding the rank of "Commander," I corresponded *directly* with the Board of Admiralty upon these subjects, for the three years that my steamer was in commission, and I received a letter of thanks from the Secretary of

* On repeating this conversation to Admiral Sir George Cockburn in 1850, he remarked, *since* Sir Charles Adam has told you so, I will confirm it, the records are at the Admiralty.

the Admiralty, whilst on the New Zealand station, in acknowledgment of those documents.

On the 1st of May, 1847, I sailed from Auckland for Wellington, and returned thence on the 15th, with important despatches for the Governor-in-Chief, reporting the particulars of a rising of the natives in the Wanganui district, and of their attack, and investment of the military post established there. On the 20th I embarked His Excellency, and the Grenadier Company of the 65th Regiment, and at daylight on the 24th I arrived off the Bar of Wanganui, and proceeded in command of all my boats manned and armed, and with the Grenadier Company of the 65th Regiment, up the Wanganui River, raised the blockade, and forced a large body of 500 armed natives to retire.

These and subsequent operations against the natives, extending over a period of about a month, have, I have reason to know, been favourably reported to their Lordships in despatches forwarded by my senior officer, Captain Charles Graham, C.B., of Her Majesty's ship *Castor*.

On joining the Commander-in-Chief, Rear-Admiral Sir Francis Collier, on the East Indian Station, I was sent to the Island of Ceylon, during the insurrection in September, 1848, with directions to take back to Madras, when no longer required, the troops that had been despatched from that Presidency; when on the point of returning from Madras to Ceylon, on the 11th October, 1848, having

landed two companies of the 25th Regiment, and completed coal and provisions, I learnt from the Captain of the *Fire Queen*, Honble. East India Company's Steamer, direct from Calcutta, that he was the bearer of important despatches from the Governor-General of India to Sir Henry Pottinger, requiring the instant aid of two Regiments from that Presidency. I instantly delayed my departure, tendered the services of the *Inflexible*, and engaged to remove an entire Regiment, tent, equipage, and baggage; first a Madras Regiment to the Arracan coast, and thence a Bengal Regiment to Calcutta, and with the bark Claudine in tow, thus moved two entire Regiments for the Indian Government, 1400 miles, in 12 days.

For this service I received two letters of thanks from Sir Henry Pottinger; the one private, the other in full Council; and also, on my arrival at Calcutta, another letter of thanks, from the President of the Council, for having performed an "*essential service to the Government of India.*" The Most Noble, the Governor-General, had proceeded to the frontier of India, on the first intelligence of the disturbances in the Punjaub, when copies of these handsome testimonials having reached him, he instantly appointed my brother, Captain Henry Hoseason, to the Staff of the Nizam force, to mark his estimation of the service I had performed, and this without any previous knowledge of either my brother or myself.

These records of my services have also, as their Lordships are aware, been lodged by me at the Admiralty.

I have further to add, that my Commander-in-Chief, the late Rear-Admiral Sir Francis Collier, highly approved of the prompt manner in which I had, *wholly upon my own responsibility*, tendered the services of my steamer; he approved, of what he was pleased to term "that spirited act," by letter, and was still more complimentary to me in the remarks he made upon my conduct to Captain, the Honble. Henry Keppel, who was with him at Singapore when my despatches arrived.

On the 28th of December, 1849, I sailed from Trincomalee to join the Commander-in-Chief at Hong-Kong, where the East Indian squadron under his orders were directed to concentrate, in consequence of disturbances being anticipated at Canton. I was selected by Rear-Admiral Sir Francis Collier to command the advanced squadron at Whampoa, "in consequence," as he was pleased to direct Captain Morgan, his Flag Captain, to inform me, "of the confidence he had in my judgment;" an opinion which he most feelingly repeated, when, on recovering his senses after his attack of paralysis, he exclaimed to Dr. Scott, surgeon of the Hastings, that he was grieved to think, that at so important a period for his country's interests, he should have lost his powers of mind for so long a period, "but," he added, "I thank God, that the advanced squadron at Whampoa is commanded by an officer in whom I

“ have the greatest confidence, who will never permit himself to be drawn into a fight, but who will fight whenever the occasion shall demand.”

On the 5th of April, 1849, I rejoined the Commander-in-Chief at Hong-Kong, and on the 30th, I received orders from Captain, the Honble. Henry Keppel, to go in search of a formidable gang of pirates, that for some time had infested that neighbourhood. I took 6 junks, 200 stand of arms, and 45 prisoners, six of whom were executed at Hong Kong.

On taking leave of my Commander-in-Chief, Sir Francis Collier, on her Majesty's steamer *Inflexible* being ordered to return to England, he was pleased to notify to me in a very complimentary manner, in the presence of his secretary, Mr. Price, and of other officers on the quarter-deck of Her Majesty's steamer *Fury*, that he was then about to write to the Admiralty his favourable opinion of me, and of the efficiency of my steamer, which despatch, no doubt, was forwarded to the Admiralty about the same time that I sailed for England, *via* Bombay.

On paying off my steamer at Woolwich, I was complimented by Commodore Henry Eden, on the many important alterations and improvements that I had effected in the ventilation of the *Inflexible*, and he informed me that he was about to recommend the alterations thus effected by me, to be adopted into the navy. I received a notification from the master shipwright, after paying off the *Inflexible*,

to state that such order had been given, and requesting the favour of any detailed information on that head.

Here, I regret to state, I have to conclude the relation of facts, all of a flattering and pleasing nature ; for on waiting on Captain Alexander Milne, a member of the Board of Admiralty, at the time of my paying off the *Inflexible*, and relating with a just feeling of satisfaction, among other claims for promotion, the knowledge I had of the handsome records left in my favour in 1848,—I was told that the then Board of Admiralty did not like to be informed of the opinions of their predecessors ; and I then learnt, to my astonishment, that the recorded opinions of such men as the Earl of Haddington, the Earl of Ellenborough, and the Right Hon. Sir George Cockburn, were not esteemed, by the then Board, as records of any value.

On paying my respects to Rear-Admiral Deans Dundas, then First Naval Lord of the Admiralty, he coolly told me, that as my services were "*done for the other Party*," he would not recommend me ; and though I remonstrated with the gallant Admiral, and declared myself not the servant of a Party, but the servant of my Queen and Country, and that I had ever acted in that spirit since I had been in the service, and more especially in conformity with the instructions I had received from his predecessor, Admiral Sir Charles Adam, yet he declined to take into consideration all my services in command

of Her Majesty's steamer *Inflexible*, in the Seas of New Zealand, Australia, India, and China.

But the spirit of Party, and the fixed determination to ignore my services, was made more intelligible to me, when, in an interview I had with Captain Charles Eden, then private Secretary to the First Lord of the Admiralty, I was informed by that officer, in a most insulting manner, that so long as *he* was at the Admiralty, "people should not be made over the heads of others, as they had been *by the damned Tories.*"

I justly conceived, Sir, that no private Secretary would have dared to give utterance to so shameless a speech, to an officer of my rank and lengthened service, had he not felt that his conduct would receive support from his superiors ; and the speeches of both the Lords of the Admiralty, on whom I had waited, on the paying off of Her Majesty's steamer *Inflexible*, fully countenanced that supposition ; I therefore considered that the wisest step for me to take, was patiently to withdraw and to wait until circumstances should place me in a position, more favourable for the advancement of my claims.

In March, 1853, at the earnest desire of the late Admiral of the Fleet, the Right Hon. Sir George Cockburn, I waited on Sir James Graham to advance my claims, but my interview satisfied me, as it did the above-named distinguished officer, that the spirit of Party was still such as precluded all hope of any consideration of my claims.

War was declared, and I drew up a plan for moving the cavalry by steam, when I proved that 1500 horses could be transported to Constantinople in six weeks less time, and at a cost of £45,000 less in money, by steamers than by sailing vessels; and for this document, which first disclosed to the Admiralty the great loss to the country consequent on the employment of sailing vessels as transports, I received—a letter of thanks!

In the absence of all recognition of my former services, yet with a view to serve my country, I brought forward my plans for the Baltic campaign; but I still have failed in obtaining aught, beyond two more letters of thanks—making now *five* in all.

I have been induced to record these facts, from having learnt that the Board of Admiralty desire to repudiate my services; and to justify their so doing in the eyes of the world by the assertion that I am "*too old*," and therefore not entitled to further advancement in the service of my country—and that to countenance such transparent act of injustice, my age has actually been falsified, and declared to be 52; instead of that which my Baptismal Register, and my passing Certificate prove it to be, only 46. Is then, Sir, a present act of palpable injustice, to find its justification in former injuries? Is this to be the reward of my "*care and attention*," my "*skill and devotion*," so admirably and concisely panegyrised in your letter of the 27th of September, "by command

of their Lordships?" But how will their Lordships reconcile this impediment to my fair claim for advancement, when the very last brevet—subsequent to the Naval Review—records the promotion of Captain Richard Borough Crawford, an officer who all the profession know, and the records of the Admiralty prove to be, far my senior in age; he having passed for Lieutenant two years before I entered the service.* This attempt, however, to deprive me of the just reward of my services, on such shallow grounds, will sufficiently establish, in the eyes of all disinterested parties, the animus of which I complain.

I cannot conclude this letter without stating that the Marquis of Dalhousie, late Governor-General of India; Sir Herbert Maddock, late President of the Council at Calcutta; Lieutenant-General Sir George Berkeley, late Commander-in-Chief, and Member of the Council at Madras; and Sir George Bonham, late Governor of Hong-Kong—are all now in England, and I feel sure will willingly bear testimony to the truthfulness of the above statements in which they severally were concerned.

Sir George Bonham, indeed, was so sensible of the extent of my services, whilst in command of the advanced squadron at Whampon, and in the subsequent capture of the Pirates, who were condemned under his jurisdiction, that he offered, with my per-

* A gallant and meritorious officer, but probably lacking Parliamentary interest.

mission, to write to request my promotion at the Foreign Office, but which honorable recognition of my services was respectfully declined by me, in the full confidence I then entertained, that those services would be immediately requited by their Lordships, on the completion of my command of Her Majesty's steamer, *Inflexible*, as I had been led to expect by Admiral Sir Charles Adam, on the eve of my departure from England.

I have the honour to be,

Sir,

Your most obedient servant,

JOHN COCHRANE ROSEASON,

Commander.

To the Secretary of the Admiralty.

Admiralty, 24th July, 1856.

SIR,

I have received your further letter of the 22nd Instant, and I have laid the same before my Lords' Commissioners of the Admiralty.

I am,

Sir,

Your obedient servant,

(Signed) THOS. PHINN.

LETTERS OF THANKS
FROM THE GOVERNMENTS OF INDIA.

Thursday, 11 A.M.

MY DEAR CAPT. HOSEASON,

I got your note out at Guindy about nine o'clock this morning, and have deferred replying to it until I came into town. I am now on my way to Council to consider what is to be done, and will mention to my colleagues the zealous and thoughtful consideration for the public service which has induced you to stay. The assistance you will be able to give us will be most valuable; and I am both publicly and privately truly obliged by your placing *Inflexible* at our use.

I have some friends to dine with me both this and to-morrow evening; if you are not pre-engaged, and feel disposed, I shall be most happy to see you on both evenings at eight. I intended to have asked you on Tuesday, but did not do so as you said you were going.

Believe me,

Your's most truly,

(Signed) HENRY POTTINGER.

Secret Department.

October 12, 1848.

SIR,

Par. 1. In acknowledging the receipt of your letter to the address of Sir Henry Pottinger, tendering the service of H.M. vessel under your command, I am directed to convey to you the best thanks of the Right Honorable the Governor in Council for your considerate and seasonable offer.

2. The Government will be happy to avail themselves of the service of your vessel, and they accordingly propose to embark in her a portion of the troops about to be despatched to the Arracan coast.

3. Should there be no impediment to your undertaking the duty, they would further request the favour of your embarking, on your arrival at Chittagong or Khyouk Phyoo, a portion of the Bengal Regiment now at those stations, and conveying them to Calcutta. The Government hope to have the troops ready for transport early on the 16th inst.

I have the honor to be,

Sir,

Your most obedient servant,

(Signed)

J. F. THOMAS,

Chief Secretary.

To John C. Hoseason, Esq.
Commander of H.M.S. "Inflexible."

Foreign Department.

Fort William, Nov. 6, 1848.

SIR,

I have the honour to acknowledge the receipt of your despatch dated the 29th ultimo, reporting your arrival from Khyouk Phyoo, in Her Majesty's steamer the *Inflexible*, with the merchant barque *Claudine* in tow, and having on board the two vessels such portion of the 40th Bengal N.I. as you found ready for embarkation at the above named port.

2. I am desired by the Honorable the President in Council to convey to you the warm acknowledgments of the Government for the service which you have thus rendered, and to signify the high sense which they entertain of the zeal and public spirit which prompted you to offer the services of your ship for the transport of troops from the Madras coast to that of Arracan, and again from the latter place to Calcutta, taking in tow, during both voyages, a heavy transport, full of troops and baggage, rendering thereby a most essential service to the Government of India.

I have the honor to be, Sir,

Your most obedient servant,

(Signed)

G. A. BUSHBY,

Offi. Secretary to the Government of India.

To J. C. Hoseason, Esq.

Commander of Her Majesty's steam sloop,

"Inflexible."

APPENDIX.

DELIVERED WITH FIRST CHART.

Explanation of Plan of Attack on Kronstat.

- A Line of battle ships prepared to support bombardment.
- B Frigates and Corvettes—their smaller draft of water rendering them more effective *here*.
- C Paddle-wheel steamers, of which there are about forty in H.M. Navy, at light draft, about twelve feet, and therefore effective east of Kronstat; these vessels should be fitted with 13-inch mortars, their paddle box boats, also, being fitted for the discharge of the heaviest rockets.
- D Columns of small steamers and gun-boats moving to take up their positions, to be employed against the fleet of the enemy in the Little Road and Man-of-war Harbour.
- E Mortar-vessels, carrying 13-inch mortars—extreme range, from 4200 yards to 4500 yards.
- F Vessels with voltaic batteries, engaged in blowing up the barrier.
- G Paddle-wheel steamers and small corvettes employed in covering the vessels engaged in blowing up the barrier.
- H The positions most favourable to enable the gun-boats and mortar-vessels to bombard the fleet lying in the Little Road, or in Man-of-war Harbour.
- I Mortar-vessels and gun-boats employed in covering the operation of blowing up the barrier.

N.B.—Single mortar-vessels and gun-boats represent positions of attack.

The boats—of draft to pass the Oranienbaum, *easily* constructed; the *largest* steamers on the Hudson draw only four and a half feet water.

The following is *about* the draft of the force at present employed in the Baltic :—

Line of battle ships, from twenty-two to thirty feet.

Large frigates and corvettes, from eighteen to twenty-two feet.

Small corvettes from fifteen to eighteen feet.

Paddle-wheel steamers of 1122 tons burthen, when deep with all stores and coals on board, fifteen and a half feet draft. When light, twelve to twelve and a half feet.

Smaller paddle-wheel steamers proportionately less.

None of the gun-boats at present constructed, it is believed, draw less than six and a half feet; to pass *easily* over the Oranienbaum, vessels of half such draft will be required.

When the passages marked in the chart are opened, vessels drawing thirteen and a half feet to eighteen feet, will be able to pass into the sea east of Kronstat.

All the launches of the line of battle ships and heavy frigates can be fitted to fire the heaviest rockets.

As the extreme range of a sea service mortar is 4500 yards, the shells will range exactly double the distance the mortar vessels are placed from the town.

DELIVERED WITH SECOND CHART.

*Estimate of the Force to be employed in an attack
on Kronstat of Gun-boats and Mortar-vessels.*

71 13-inch Mortars, engaged in bombarding Kronstat, will fire
one shell every ten minutes.

	Tons.	cwts.	lbs.
Weight of each shell	0	0	200
Bursting powder	0	0	10
Total	0	0	210
Full charge of powder	0	0	20
Daily expenditure of shells for each mortar (one hundred and forty four) weight .	13	10	0
Daily consumption of powder for each mortar	1	5	80
Daily consumption of bursting powder .	0	12	96
Total number of shells thrown into the city daily by seventy-one mortars—ten thou- sand two hundred and twenty-four.			
Total weight of shells	1093	0	0
Total daily expenditure of powder, for mor- tars, inclusive of bursting powder . . .	136	18	64

The weight of shot fired by the gun-boats will be considerably less than the weight of shell fired by the mortars; but, as the number fired in ten minutes will be three-fold, the total daily expenditure in the weight of powder and shot are assumed to be the same per gun, deducting the amount of bursting powder.

Fifty guns engaged in bombarding Kronstat :

Number of shot fired, per day, thirteen
thousand six hundred.

Weight of shot	600	0	0
Daily expenditure of powder for guns .	105	0	0
Total consumption of powder, each day of 24 hours, for the bombardment .	241	18	64

	Gun-boats.	Mortar-ves.
Total force of gun-boats and mortar-vessels engaged in attack on Kronstat . . .	50	71
Barrier North of Lisi Nos . . .	28	13
Cordon facing St. Petersburg . . .	56	27
Reserve force of gun-boats and mortar-vessels	105	100
	239	211

Total of gun-boats and mortar-vessels —450

	Square feet.
Area of Kronstat	15,187,500
„ Man-of-war harbour	2,520,000
„ Little Road	5,760,000
	23,467,500

Area of force engaged in bombarding Kronstat 196,020

Ratio—120 to 1.

KRONSTAT.

Attacking force.

NOTE.—This supposes the attacking force concentrated in one mass, which of course is not the case.

NOTE.—Each shell falls with a crushing force of about 48 tons.

Total crushing force of the 71 mortars bombarding Kronstat, each day of 24 hours 490,752 tons.

*Explanation of Plan of Attack on Helsingfors
and Sveaborg (after the Fall of Kronstat).*

LEFT ATTACK.

COMMODORE'S PENDANT.

COM.-IN-CHIEF'S FLAG.

- A Line of battle ships watching the harbour, and prepared to support the attack.
- B Mortar-vessels engaged in bombarding Sveaborg.
- C Column of gun-boats carrying heavy ordnance, munitions of war, and provisions, to the intrenchments of the Allied armies.
- D Gun-boats and mortar-vessels, employed to sweep round the Island of Drumsjö; open fire on the town of Helsingfors; land seamen and marines to erect batteries on the Island of Folis, and open their fire on the rear of any batteries that may be constructed during the winter on the Island of Drumsjö.
- E Column of gun-boats conveying seamen and marines to form the garrison of the Island of Drumsjö, with the necessary means to establish batteries.
- F Line of battle ships covering the disembarcation.
- G Floating batteries advancing to cover the disembarcation, and which will afterwards open fire on the works established at Helsingfors, to divert the attack of the enemy; whilst batteries are being thrown up on the Island of Drumsjö.

RIGHT ATTACK.

ADMIRAL OF THE WHITE.

ADMIRAL OF THE BLUE.

- H Line of battle ships, frigates, corvettes, and paddle-wheel steamers, prepared to support the bombardment, and ready to disembark seamen and marines on the Island of Sandhamn and Degero, to attack the enemy stationed there, and erect batteries as marked on the chart; to take the enemy's works in reverse—reduce the small Fort at Hasnas Sound—and thus open a passage for gun and mortar-vessels *into the harbour itself*.
- I Mortar-vessels throwing shells into the enemy's batteries erected on the Island of Sandhamn, with a view to divert attention from the column of gun and mortar-vessels conveying a force to land on the North side of the Island of Sandhamn.
- J Gun-boats and mortar-vessels conveying this force to the Island of Sandhamn.
- K Floating-batteries advancing to open fire on the small Fort erected to defend the entrance into the harbour from Hasnas Sound.
- L Columns of gun-boats and mortar-vessels, under the command of the Admiral of the Blue, to effect a landing on the Island of Degero; erect batteries as described on the chart; one column passing to the North of Degero will make an entrance, if possible, into the harbour, through the narrow entrance given in the chart.

NOTE.—The dotted lines from the head of columns denote the course the vessels are to take.

As a shot will not ricochet upon water when fired from a gun that has more than 4 deg. elevation, and as the greatest range of the best English Ordnance is only 1800 yards with that elevation, all the mortar-vessels are placed at least 2200 yards from the

enemy's works, or 400 yards *beyond* the range that a *shot ceases to ricochet*.

The Rev. E. L. Berthon's portable boats will be available for conveying troops to the Islands of Brandö, and Blabers Landet ; which may be carried over land to the right flank of the besieging army, and launched into the water under cover of the night.

GENERAL ABSTRACT OF THE RUSSIAN ARMY.

CLASS.	CORPS.	INFANTRY Bayonets.	CAVALRY Sabres.	ARTILLERY.		TOTAL Fighting Men.
				Gunners and Sappers.	Field Guns.	
Moveable or Active.	Guards	30,000	10,000	4,000	120	44,000
	Grenadiers.....	26,000	4,000	3,000	112	33,000
	Six Corps	204,000	24,000	18,000	672	246,000
	Reserve Cavalry..	.....	20,000	2,000	96	22,000
	Total	260,000	58,000	27,000	1,000	345,000
Provincial or Stationary.	Caucasus	80,000	10,000	5,000	176	95,000
	Finland	9,000	500	500	16	10,000
	Orenberg	7,000	7,500	500	24	15,000
	Siberian.....	14,000	6,000	500	24	20,000
	Total	110,000	24,000	6,500	240	140,000
Reserve and Garrison.	Reserve of the Active Army.. }	80,000	8,000	....	....	88,000
	Inward Guard & Gendarmes ... }	35,000	1,000	....	....	36,000
	Garrison Artillery & Artificers, &c. }	.....	....	16,000	....	16,000
	Total	115,000	9,000	16,000	....	140,000
	Grand Total ..	485,000	91,000	49,000	1,240	625,000

The above shews, in round numbers, the real effective strength of disciplined troops that can be mustered for fighting in all parts of the empire, and is liable to all reductions arising from loss in battle, sickness, or other casualties of war.



